GIANT VALVE BLOWOUT

15-PAGE SPECIAL FEATURE!
TEAM FORTRESS 2, PORTAL,
AND HALF-LIFE 2: EPISODE TWO

COMPUTER GAMING

The PC Gaming Authority

RAINBOW SIX VEGAS, BABY!
P. 34>

CIAL REPORT
RTIFICIAL
TELLIGENCE
ER MOLYNEUX &
RREN SPECTOR ON
KING GAMES THINK

XCLUSIVE SCREENS AND INFO

TEAM FORTRESS 2

THE KING OF ONLINE SHOOTERS RETURNS—AT LONG LAST!

PLUS: HANDS-ON WITH PORTAL • HALF-LIFE 2: EPISODE TWO SHOCKER

FIRST LOOK!
KANE & LYNCH
HITMAN MAKERS' NEXT TARGET
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BETTER THAN BATTLEFIELD 2?
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INTERVIEW
MARK REIN
EPIC GAMES' OUTSPOKEN VP MOUTHS OFF
PAGE 40

FORGE YOUR

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SID MEIER RETURNS TO REINVENT THE GAME THAT LAUNCHED THE "TYCOON" GENRE.

Creators of the world's best strategy game, Sid Meier and Firaxis Games put you in charge of building the greatest rail empire in the nation! Manage trains, cargo and your bottom line while engaging in all-out corporate warfare against rival tycoons, slick entrepreneurs and robber barons!

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PC CD-ROM SOFTWARE

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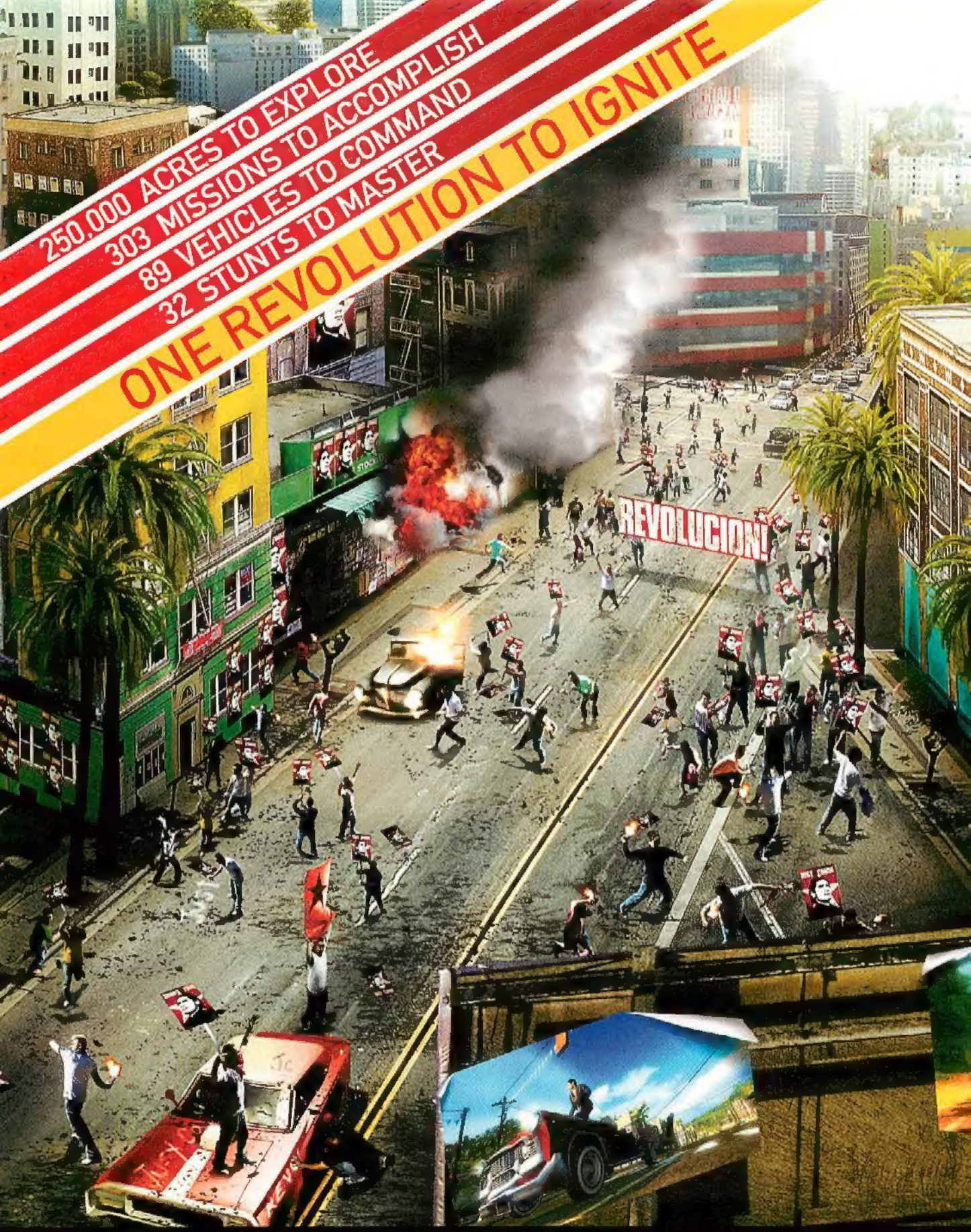

MATURE 17+
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CONTENT RATED BY ESRB

Blood
Drug Reference
Intense Violence
Language
Sexual Themes

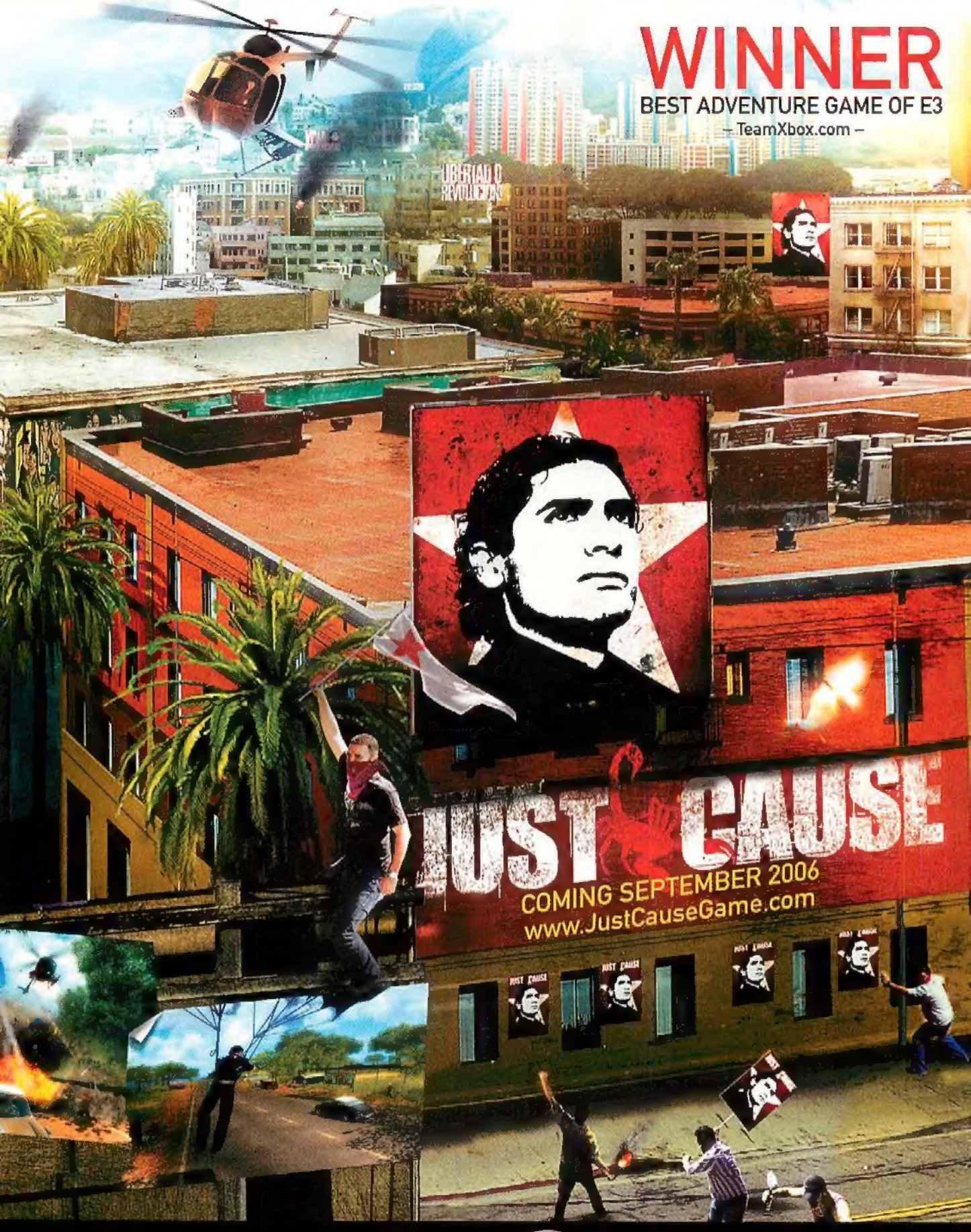
PC DVD-ROM SOFTWARE

PlayStation 2

XBOX

XBOX 360

avalanche



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MATURE 17+
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Strong Language
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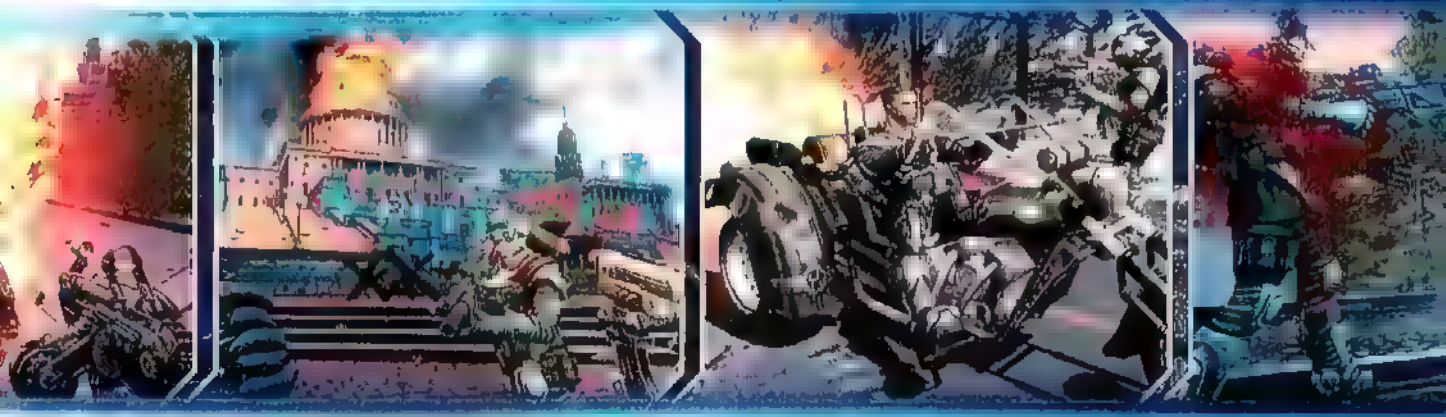
- **Environments are rendered in cinematic quality,** and every move is simultaneously tracked and recorded for seamless time control.
- **Epic Destruction:** Unleash an arsenal of powerful weapons and vehicles across more than 30 combat missions, spanning outdoor, urban, aerial and indoor environments.



TIMESHIFT

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OCTOBER 2006 ISSUE #267

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COVER STORY

VALVE

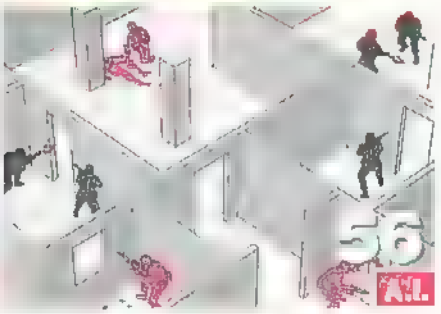
What's the deal with *Team Fortress 2*? How sick is *Portal*? What's next for Gordon Freeman in *Half-Life 2: Episode Two*? All great questions—you'll find some answers in this month's cover story!

18 Editorial

Can you hear it? Do you feel it? Change is coming. Our intrepid editor-in-chief takes some time out from his cross-country excursion to explain.

20 Letters

This month, a little something for the science fiction fans: what our August 2006 *Sam & Max* cover might have looked like in an *alternate universe*! Also: furries.



26 Radar

Sit in on a roundtable discussion of gaming A.I., read our exclusive interview with Epic Games VP Mark Rein, and get the latest on *Kane & Lynch: Dead Men*, *Frontlines: Fuel of War*, *Rainbow Six Vegas*, and *BioShock*

87 Viewpoint

We delve into the recent *Civilization IV: Warlords* and *Dungeon Siege II: Broken World* expansions, as well as multiplayer psychological shooter *The Ship*. Then it's time for wild *Ultima Online* stories before we join Tom and Bruce for...a Java-based card game?

88 Civilization IV: Warlords
90 Dungeon Siege II: Broken World
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94 The Ship
96 Tom vs. Bruce: PoxNora

100 Tech

A whole feature on audio? Sounds good to us! Listen up and we'll tell you why good audio hardware makes your game performance sing.

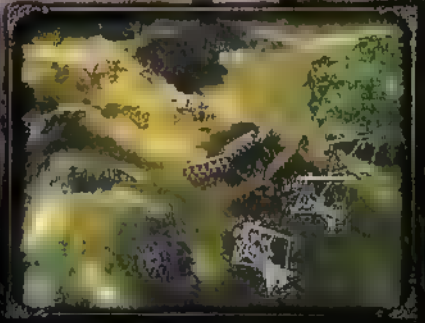
continued on page 14

STRONGHOLD LEGENDS

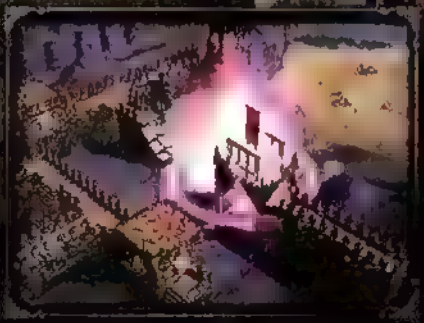
BECOME A LEGEND

Stronghold Legends is a dramatic new RTS adventure set in the medieval world of Stronghold. Play as King Arthur and his Knights of the Round Table, Count Vlad Dracul, or the mighty Siegfried of Germany. Seize control of 3 vast kingdoms and become a legend.

25 missions over 3 unique campaigns all with advanced AI, give the best ever single player Stronghold experience



100s more siege equipment and castle traps - improved hunters, stable hunters, tunnel systems, dragon harpoons



Brand new 4-player multiplayer features, including a challenging skirmish mode Deathmatch and 'King of the Hill'

TEEN T Alcohol Reference Violence ESRB CONTENT RATING www.esrb.org

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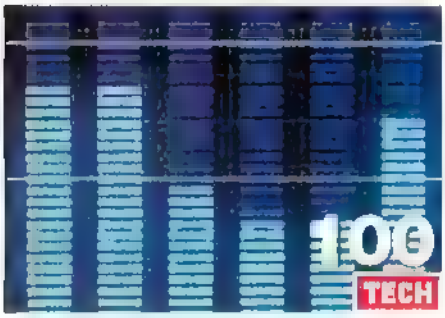
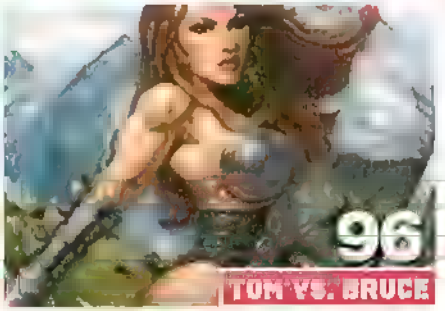


110 Greenspeak
To all you elitist bastards who insist on playing games in hard mode: Shaddup. To everyone who plays in easy mode, You're not alone



THIS MONTH ON 1UP.COM

1UP NETWORK

CGWRADIO.1UP.COM
Hello and welcome...to the weekly *CGW* Radio podcast! Crank the volume and hear what the intrepid editorial staff has to say about all things PC gaming–related.

BOARDS.1UP.COM
Had enough of our nonsense? Come to our official message boards and let us know! *CGW*'s official forum is a great way to get in touch with the editorial staff and scores of hardcore PC gamers.

CGW-RYAN.1UP.COM
Take a peek at one mild-mannered *CGW* editor's rants on weird dreams, Pop Tarts, and all things *Sam & Max*.

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PC DVD-ROM SOFTWARE

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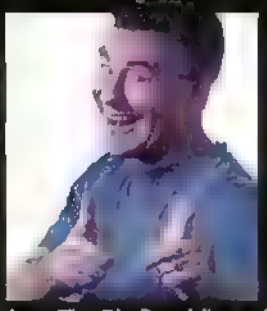
EDITORIAL 267

J.G. PHONE HOME

Missive from a wandering editor



Where am I again? Can someone remind me? It's not that I'm suffering from old-man memory loss...it's just that during the entire production of this month's issue I've been on the road. Even as I type this now, I am sitting on a plane bound for good ol' Austin, Texas, far away from the good ship *Computer Gaming World* in San Francisco, California.

Why you should care about this—other than the fact that we've always been close, you and I—is that my travels are directly related to the future of this magazine, which (as many of you already know) is about to change dramatically. And though we're still a couple months away from The Big Day, I figured it's not too early to start talking about it all official-like, just to make sure we're on the same page. If you know what I'm talking about and are already tired of hearing about it, then bear with me. It's not because I'm forgetful or stupid. I just care, dammit!

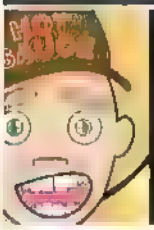
So the deal is this: In the December issue, *CGW* will transform, as if by magic, into *Games for Windows: The Official Magazine*. Rolls right off the tongue, doesn't it? Yeah. Well, you'll get used to it. And maybe we will, too. This is a huge deal—obviously, after 25 glorious years of *CGW*—but however traumatic or shocking the change may seem now, this is going to be a great thing both for us here and for all PC gamers. It's a play for the big leagues, a swing for the fences. It's an acknowledgment that PC gaming is here to stay, that it matters, and that it deserves its own official magazine. And that magazine, my friends, is this one right here.

Or at least it will be. You're about to read the next-to-last *CGW*. Enjoy it—I know I will, since I wasn't around to participate. If it sucks, blame the other guys. And if it's great, as I suspect it is, thank my awesome staff—who always has my back, whether I'm in or out of town. Turn the page, and let's see what's up.

/JEFF GREEN EDITOR-IN-CHIEF

Now Playing: Diablo II on my laptop.
1UP.com Blog: cgwjeff.1UP.com

SINCE *TEAM FORTRESS 2* WAS ANNOUNCED IN 1999...

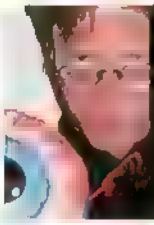


SEAN MOLLOY
MANAGING EDITOR

...I've moved across the country; lived in seven apartments; held jobs as an engineer and a movie critic; lost a cat; gained a dog; read 67 science fiction novels with embarrassing covers.
Now Playing: Civilization IV, World of Warcraft, Dead Rising (Xbox 360)
1UP.com Blog: cgwsean.1UP.com

DARREN GLADSTONE
SENIOR EDITOR (FEATURES/TECH)

...I've lived out of a duffel bag for two months (moving from NYC to San Francisco on a whim); wrote for a billion magazines; partied with Ron Jeremy; bought a drink for Alyssa Milano.
Now Playing: Dead Rising (Xbox 360), Dark Messiah, Company of Heroes
1UP.com Blog: cgw_glowe.1UP.com



RYAN SCOTT
EDITOR (VIEWPOINT)

...I landed my first job out of high school; paid off a car; moved out of my parents' house; witnessed two presidential elections; acted as editor for four different sections of *CGW*; attended five consecutive E3s.
Now Playing: EVE Online
1UP.com Blog: cgw-ryan.1UP.com

SHAWN ELLIOTT
EDITOR (RADAR)

...I've earned a master's degree in creative writing; expanded from console to PC gaming; worked on *Electronic Gaming Monthly*; freelanced for everyone else.
Now Playing: Company of Heroes, Dark Messiah of Might and Magic
1UP.com Blog: cgwshawn.1UP.com

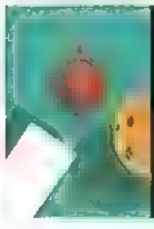
LOGAN PARR
[redacted]

...I bought my first home; moved on from LucasArts; back to New Zealand; and, oh yeah, played something like a zillion games.

Now Playing: The Elder Scrolls IV: Oblivion, Prey
1UP.com Blog: logans_run.1UP.com

MICHAEL JENNINGS
ART DIRECTOR

...I've entered the exciting world of magazine publishing; found that world is wacky and unpredictable; went surfing in Baja for a while; reentered the world of magazines; saw all three *LOTR* movies and *Star Wars* prequels.
Now Playing: Prey
1UP.com Blog: cgw_jennings.1UP.com



SEAN DALLASKIDD
ASSOCIATE ART DIRECTOR

...Kevin Bacon has been in more than 14 movies—a slump, considering he's been in more than 40 since 1978.

Now Playing: Tenchu Dark Secret
1UP.com Blog: the_dallaskidd.1UP.com

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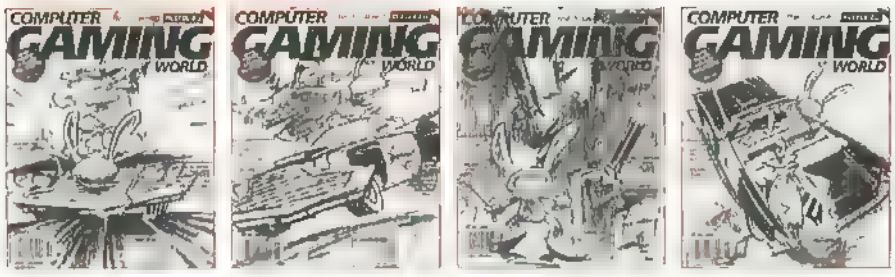
LETTERS

ISSUE 267

REMEMBER KIDS, WE TAKE CASH, TOO!

LETTER OF THE MONTH



Let's cut the cow manure: August 2006 issue, *Sam & Max* cover story. Page 70. Photo of *CGW* staffers Ryan Scott, Michael Jennings, Darren Gladstone, and *Sam & Max* creator Steve Purcell. Well...I was just thinking maybe you could be friendly guys and send me one of those good "prototype" *CGW* covers that Mr. Purcell drew for this issue? I promise it will be the Ancient of Ancients! The Art fact of Artifacts! You have my word.

Alfred Chou

You mean those prototype covers up on top of the page there?

CONSOLE CONVERGENCE

In the article "A Separate Peace" from *CGW* #265, Matthew Guzenda of Crystal Dynamics states, "I can't really think of anything long-term that a PC will be able to do that a console won't." Does this mean I can look forward to my kids downloading porn on their Xbox?

Don Voge

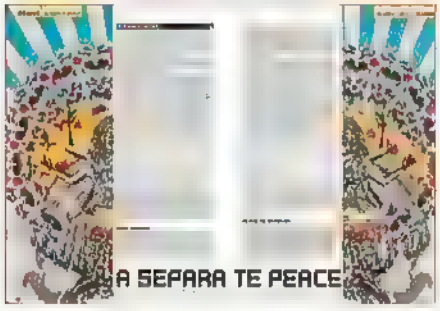
Yes, but only after they've applied for variable-rate mortgages and punched that damn monkey a few times to win an iPod.

I was thinking on your August issue's Radar topic of PC-console convergence. As I see it, the console's only real advantage is that it is a fixed environment: Once a game works, it works on everyone's box. The PC, however, is a dynamic environment, in terms of both hardware and software. It seems to me that if you know that a PC is going to be gaming-only (and many families have multiple PCs, so that's viable), you could trim the OS to a subset of the bloated thing Windows is now, increasing reliability and decreasing resource-hogging. Without all the "features" that support actual productivity apps, Windows could be tight and sleek.

So, how about using your bully pulpit to lobby Microsoft for a gaming-only version of its OS? Taking a proportion of PCs out of the available pool for spreadsheets and whatnot would probably raise PC sales (and siphoning PlayStation purchases away from Sony, since they're claiming they're building computers these days...and charging for one). That translates to more copies of Windows going out the door, too. Heck, maybe Dell would fund the development!

Kaffen

Think about what you're asking for: Do you really want to have to fork over the cash for yet another version of Windows? While there's an off chance that a games-only edition might speed things up and prevent a few crashes here and there, it certainly wouldn't be the "once a game works, it works on everyone's box" answer. Hardware's the real sticking point: With so many processors, motherboard architectures, videocards, soundcards, and drivers, it's impossible for game devs to design for every possible combination. PC gaming's strength and its weakness.



F***ING DAMMIT!

While paging through the August 2006 issue, I became acutely aware of the gratuitous amount of cursing that filled your copy. In my opinion, you have strayed over the line of what is—or what should be—acceptable conduct for a magazine of your caliber. What I'm referring to was most apparent in your Gladstoned column (Honestly, does anyone care how trying it is for this "modern woman" to be engaged to a gamer, anyway? How many females read this magazine?), as well as your "Overrated/Underrated" feature.

However, before we go any further, I should point out I'm not guiltless in this matter, either. I admit I'm often prone to filing off many of the profanities you list. With that said, I try to refrain, as much as possible, from spouting profanities in the public agora—especially if younger audiences are likely to overhear. Now, I know you do refrain (for the most part) from stating the profanities explicitly (with the exceptions of "goddamn" and "bitch," both of which I consider unsuitable). But honestly, is there anyone capable of reading a sentence who doesn't know what "f***in'" or "s***" means? Would any on-staff parents feel comfortable allowing their kids to read a column like Gladstoned?

Not only is the excessive level of profanity puerile and unprofessional, it also makes taking you seriously when you actually adopt a serious tone that much more difficult. After all, why should I even consider your moral stance on an issue like game piracy when you yourselves fail to exhibit a fraction of the restraint you're advocating? Once upon a time, *CGW* epitomized journalistic excellence, when it elevated itself above—rather than pandered to—the lowest common denominator.

Trevor Tuininga

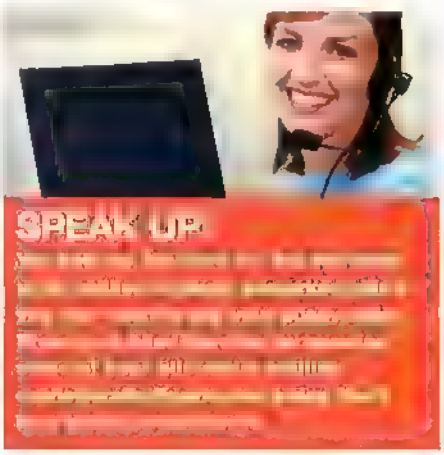
Sorry, Trevor. We f*ed this one up big time.**

ASK, AND YE SHALL RECEIVE

Will you guys run a story in the next issue about *Team Fortress 2* (which Valve says is coming with *Half-Life 2: Episode Two*)? A cover story, even?

Dan

Get out of our heads, Dan. GET OUT OF OUR HEADS! Oh, and check out our cover story on all things Valve (including *Team Fortress 2*) starting on page 70.>



MAIL BYTES

F*** *Age of Empires II*
—Druz3

Why does my *Oblivion* keep crashing?
—college_boy

When are we going to hear about Jeff [Green's] "tight pants" effect on the ladies?
—Dough with Flair

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FORTUNE AND GLORY

Just want to say thanks for publishing one of my e-mails. It's gotten me some fame where I work!

Adam Ruhoff

You're welcome, Adam. Hey, look! Now you're even more famous!

CH-CH-CHANGES

You should ignore all those losers who complain about the changes to the Viewpoint section. Hey, people! If you're so mad, then stop buying the magazine! And do you really think that sending hate mail is going to help? That never works. I can see it now: "Hey guys, someone just threatened us with his *unsub scription*! Quick, we'd better change it back!" Readers like you are the reasons people who are original and like to think outside the box—like, say, the writers and editors of *CGW*—are such a dying breed.

Lucas

FURRY CORNER

Our off-the-cuff commentary about the furry community on the CGW Radio podcast (cgwradio.1UP.com) a while back has kicked off quite the debate. Here's the latest batch of furry-mail. Keep 'em coming!

In response to Schwimmwagen21's letter about furries from *CGW* #265: The furry fandom's big on foxes, wolves, and—yes—rabbits. Sheep? Not so much. Furry fans are mostly individualists (or like to think so), and so most tend not to take on the persona of a herd animal unless it has something distinctive about it. Furries have a reputation for being dumb, too—and the whole point of furry characters is that they're what animals would be like if they were sentient. Think "humans in funny suits" (which is what the fur suits are all about).

I wouldn't say that a "very small percentage" of the fandom support "adult themes." A big market exists for anthropomorphic erotica, though it turns out an even bigger one exists for nonadult anthropomorphic artwork...just like the market for other forms of art! Wow, who'da thunk?

In case you're not bored stiff by the topic, drop by Wikifur.com—its 4,400 articles on furry fandom should be more than enough to make fur grow on the palms of your paws. Nothing on Jessica Rabbit, but look up Shanda the Panda, Omaha the Cat Dancer, and Zig Zag if you want to know about the *real* furry equivalents.

Laurence "GreenReaper" Parry

ILLUSTRATION BY SEAN DALASKIDD

Furries are known to be irrational, quick to anger, easily offended, self-righteous, and very, very, very dim. Here are some tips and facts for dealing with and arguing with furries that you may find useful. By knowing how someone will react, you have already won half the battle.

1 Speak calmly and clearly, because acting angrily toward a furry will cause it to go into defensive mode and start ignoring everything you say. It's much better to stay calm and carefully inform them that they are perverts.

2 Furries often wave their freedom of expression around as an "anything goes" pass to let them do whatever they want while avoiding criticism, but they constantly forget that it also applies to others. They often seek to silence anyone that opposes them or mocks them, completely missing the irony of doing so.

3 Furries will take special care to tell you how they have "won" an argument at every turn. They will also twist words and logic to appear superior. Remember: Furries can never truly win an argument, since at the end of the day, when everyone goes home, they are still furries, and you are not. In this sense, a furry can never put forward a winning argument. A simple rebuff of any argument with "but you are a furry" is invincible.

4 There is no such thing as racism against furries, because "furry" is neither a race nor an ethnicity. Furries make a choice to join the furry community and condone its massive output of disgusting gunk.

Marshall Banana

DEPARTMENT OF CORRECTIONS

Oops! In our *Half-Life 2: Episode One* Viewpoint article from *CGW* #265 (page 80), we provided an inaccurate Reality Check score synopsis. Here's the correct rundown—we apologize for any confusion.

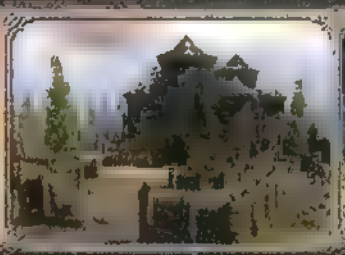
REALITY CHECK

1UP NETWORK	8/10
GAMESPOT	8.7/10
GAMESPY	4.5/5
IGN	8.5/10

FORGOTTEN REALMS

NEVERWINTER NIGHTS 2

everything you do has a meaning



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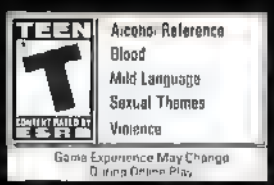

OBSIDIAN

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ACTUAL GAME SCREEN SHOT

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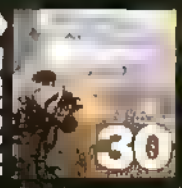
RADAR

NEWS, PREVIEWS, AND PERT OPINION, EVERY MONTH

KANE & LYNCH: DEAD

How to raise an underground army

INSIDE

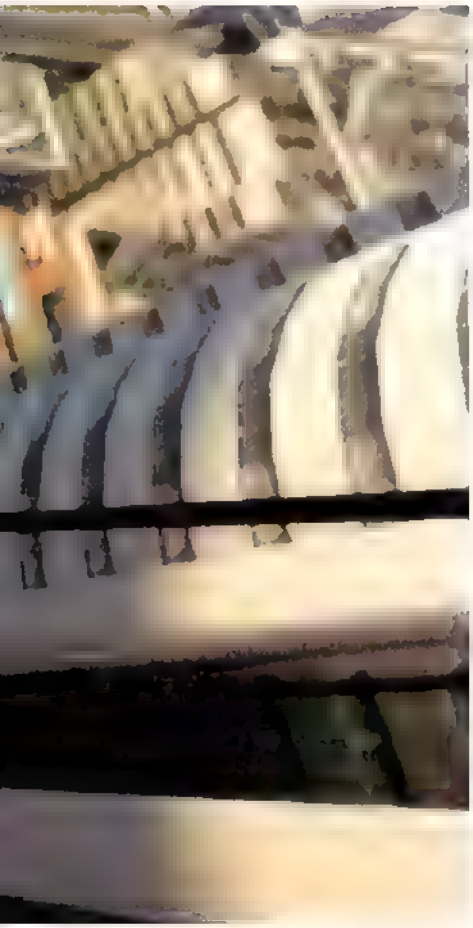


PREVIEW
Frontlines: Fuel of War
Kaos Studios' first-person shooter serves up warfare just the way you like it. 30

INTERVIEW
Mark Rein
Epic Games' vice president on *UT2007*, episodic content, and why Intel is ruining PC gaming for us all. 40

TRENDS
Matchstick Men
Peter Molyneux, Warren Spector, and other game-design brainiacs dissect artificial intelligence. 56

MEN



IO INFO
IO Interactive is best known for its murder-simulating *Hitman* series.

PUBLISHER: Eidos DEVELOPER: IO Interactive GENRE: Third-person shooter RELEASE DATE: 2007

THERE'S STRENGTH IN NUMBERS, SO they say—unless those numbers shoot friends, won't follow orders, or perform otherwise egregious miscalculations of common sense. As shooting games grow beyond one guy and his guns, intelligent artificial intelligence becomes increasingly imperative—not for your foes, but for the allies you trust to act as assets rather than liabilities.

So pray for IO Interactive's *Kane & Lynch: Dead Men*, a buddy-criminal flick cum squad-based third-person shooter that's betting the bank on allied brains. The premise: You play Kane, a "misunderstood" electric chair–bound mercenary who escapes his fate and finds redemption in the underground; at your side is Lynch, a doped-up murderer who might've done in his own family, and an A.I. flash mob to help out with firefighting.

Rewind to 2003's *Freedom Fighters*, IO's "what if the Ruskies invaded America?" PC/Xbox/PS2 squad shooter. Three basic commands (attack, fall back, defend your position) directed allies with minimal fuss. "*Freedom Fighters* was a good training ground for us," says *K&L* game director Jens Peter Kurup, who describes *K&L*'s squad-control system as a "simpler" and, at the same time, more tactically complex version of the already-effortless *Freedom Fighters* scheme.

When asked why more developers haven't copied *Fighters*' system, Kurup answers, "We aren't sure...perhaps people stick to the 'must add more features' approach and end up with something cumbersome."

"Squad members and opposing forces react to a range of stimuli," continues Kurup. "The most powerful inputs are perceived threat, fear, and firepower. It's crucial that A.I. reacts realistically, and team tactics vary according to evolving situations—for instance, if the team is outgunned, it'll attempt to leverage suppressing fire in order to advance." Immense effort, in other words, to make players feel like they're fighting the foes designers intend them to fight, rather than the desire to uninstall suspect software.

And that's why *Kane & Lynch*'s next design decision is so surprising: When loose-cannon Lynch has one of his "episodes," he stops obeying your commands. While IO's aim is to add tens on to firefights, we question the wisdom of saddling players with a bats*** insane sidekick. What if he's, you know, really, really annoying? Isn't this the same as sanctioning everything IO's poor A.I. programmers devote themselves to preventing?

"We're working hard to avoid that," Kurup says. "The secret lies in your understanding of Lynch's state of mind so that you can sense the onset of an episode. Combine that with a large amount of testing and tweaking, and we aren't worried."

THE C-WORD

While loony Lynch shares top billing with straight-laced Kane, the balance (at least in single-player mode) is obviously in Kane's favor. "The reason that Kane is given slightly more focus is that he is definitely the more professional and skillfully trained of the two," says Kurup. "We felt it would weaken storytelling and immersion to be able to jump between Kane and Lynch in single-player. Storywise, we're focusing more on Kane, but only marginally."

"We're trying to deliver an intense cinematic story and experience," says Kurup, invoking the c-word like so many other starry-eyed

IN A PERFECT WORLD...

Kurup's wish list of stuff he never wants to see in a game again: "Loading screens, noninteractive sequences, bad A.I., lifeless characters, respawning enemies, infinite ammo, health packs, rigid training levels, and repetitive music." Make a mental note to see if any of these things make the cut in *Kane & Lynch*.

gamemakers. However, when he lists IO's influences, we understand: "*Man on Fire*, *Clear and Present Danger*, *Miami Vice*, *Black Hawk Down*, *Heat*," the last of which evokes some particularly memorable firefights—and firefights, when all is said and done, are at *Kane & Lynch*'s heart. "Great tension, real danger, excellent detail, and an epic struggle" define first-rate shootouts, according to Kurup. "A bad firefight is one without risk."

The tension lies in Lynch's unpredictability, the epic scale in your league of squadmates, the detail in destructible environments, and the threat—aside from baddies and their bullets—in ammo pickups, of all places. "We're avoiding illogical pickup placement," Kurup says. Squadmates play pack mule, and extra supplies are precious. Need a new rifle? Swap one with Skippy over there—but don't leave him defenseless. "Weapons, items, and ammo are only available in appropriate locations such as an armory or security office. We're making the resupply problem slightly more interesting," he teases, "but aren't ready to reveal how just yet."

Also adding to the big-screen vibe: no inventory-management menus to break up the action. "Menu screens and clutter can kill immersion," says Kurup.

FRIEND OF A FRIEND

Kurup extends the movie metaphor to *Kane & Lynch*'s co-op play. "In a sense, it's like watching a film," he says. "You can watch a film by yourself and enjoy it, but it's better to share the experience with someone else so that you can discuss it and laugh about it later. That's what we're after."

Cooperative mode not only offers the only opportunity to take control of Lynch, it's also your only means of avoiding his off-the-meds fits. Rather than craft a completely separate two-player mode, *Splinter Cell*–style, IO is designing *K&L*'s single-player content to support co-op play—a tough balancing act for the level designers. "The most important thing is to ensure that you can't just steamroll through levels in co-op mode," says Kurup. "We also have to make sure that levels offer alternative paths for players to try more elaborate flanking and pincer movements."

As for competitive multiplayer modes, IO isn't talking, although Kurup hints at something more than dime-a-dozen deathmatching. According to him, "Competitive multiplayer is important to today's always-connected game communities, and we want to offer highly innovative solutions. Why make an average multiplayer game? People will play it for an hour and then go back to *Counter-Strike* or *Halo*." Know your enemy, the saying goes. And if you're Kane or Lynch, you'd be wise to know your friends, too. **Sean Molloy**

As *Kane & Lynch* is coming out for the Xbox 360, too, IO is considering Live Anywhere play as an option.

Erratic, annoying A.I. as a selling point? When Lynch's meds run out, consider this loose cannon's fuse lit.

IO felt that it would have been immersion-breaking to jump between Kane and Lynch in single-player mode.

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can go lone wolf and embark on intricate quests (over 800 quest chains!). You gather power and loll
And then, when the time is ripe, you challenge the ArchLord. If you're successful, you inherit the title and awesome powers that will help you rule Chantra and dominate the thousands of your fellow players worldwide.

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The Orcs
Orcs considered the elder race on Chantra. Orcs have occupied the world for a very, very long time. The ferocious Berserker possesses powerful and surprising magic skills. A warrior, they are [illegible] and strong. The [illegible]

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Objectives beget new vehicles, weapons, equipment—and more objectives.

Kaos is keeping mum on special multiplayer modes, but promises *Frontlines* will stand apart from what DeLise calls "the typical bot matches found in most multiplayer games."

BATTLEFIELD SPONTANEOUS

Combat freedom in *Frontlines*

PUBLISHER **THQ** DEVELOPER **Kaos Studios** GENRE **First-Person Shooter** RELEASE DATE **Summer 2007**

PREVIEW

GHOST RECON SENT YOU SCRABBLING for cover. *Battlefield 2* flung you whooping from it. *Frontlines: Fuel of War* wants to pitch you somewhere in between. "Our aim is to balance fast-paced cinematic intensity with strategy," says Kaos Studios lead designer Frank DeLise, conjuring visions of chess meeting *Black Hawk Down*. "Players choose how to take on objectives—go stealthy and find new ways to sneak using different roles and recon equipment, or choose a heavy loadout and run a full-guns offensive."

West versus East in a near-future squabble over oil, role-based combat specialties, working in foot squads or flinging vehicle fire—sound kinda like the same-ol' thing? *Frontlines'* hook: "Each theater is roughly an hour of gameplay streamed in with no loading," DeLise explains. "The theaters themselves have front lines with a series of spread-out, nonlinear objectives that you must achieve to move that front forward." Whisking you between war theaters from Afghanistan to Moscow, *Frontlines* lets you pick missions and objectives your way. Snipe the enemy team holed up on the far hill, fling grenades at the nearby command HQ, or just recon the whole shindig—you tap your squad bots (in single-player), you mark the targets.

"Capture objectives and you get new abilities, like equipment, weapons, and vehicles, which you'll then use to grab the next objective," says DeLise, explaining how you'll refine your soldier class by choosing loadouts and roles. "The loadout is your weapon choice plus secondary elements like smoke grenades and proximity mines. Your role, on the other hand, adds equipment such as remote-controlled drones—for recon—or base defenses." DeLise says roles improve according to use and yield access to new abilities. A drone specialist might start with a passive recon drone and upgrade to one capable of assaults later in the game. And while role-playing combat ops aren't exactly news, the team hopes a few of *Frontlines'* 60 next-gen weapons and vehicles will knock the socks off conventional shooter tactics.

In the end, DeLise wants *Frontlines* to convey a broad range of emotions and playing styles. "It'll always feel like you're in a much bigger battle with lots of allies around you, fighting and changing their strategy based on the objectives you've achieved," he says. "Your squadmates will react like real soldiers, yelling for help and pointing out threats using a contextual battle-chatter system that brings the war to life." And, with a little luck, it'll bring a well-worn genre to life, too. / Matt Peckham

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CELLFACTOR REVOLUTION

See s*** fly. *CellFactor* showcases the Newtonian power of Ageia's new PhysX card with gravity-defying gameplay.

GAMECRAZY TRAINING

Schoolmarmish marketer calls retailer GameCrazy "the hizzouse; you know, the heezy" in this train wreck of an employee training vid.

VALVE VISIT

See it as the DVD extras to this issue's cover story: Go behind the scenes of *Team Fortress 2*, *Portal*, and *Half-Life 2: Episode Two*.

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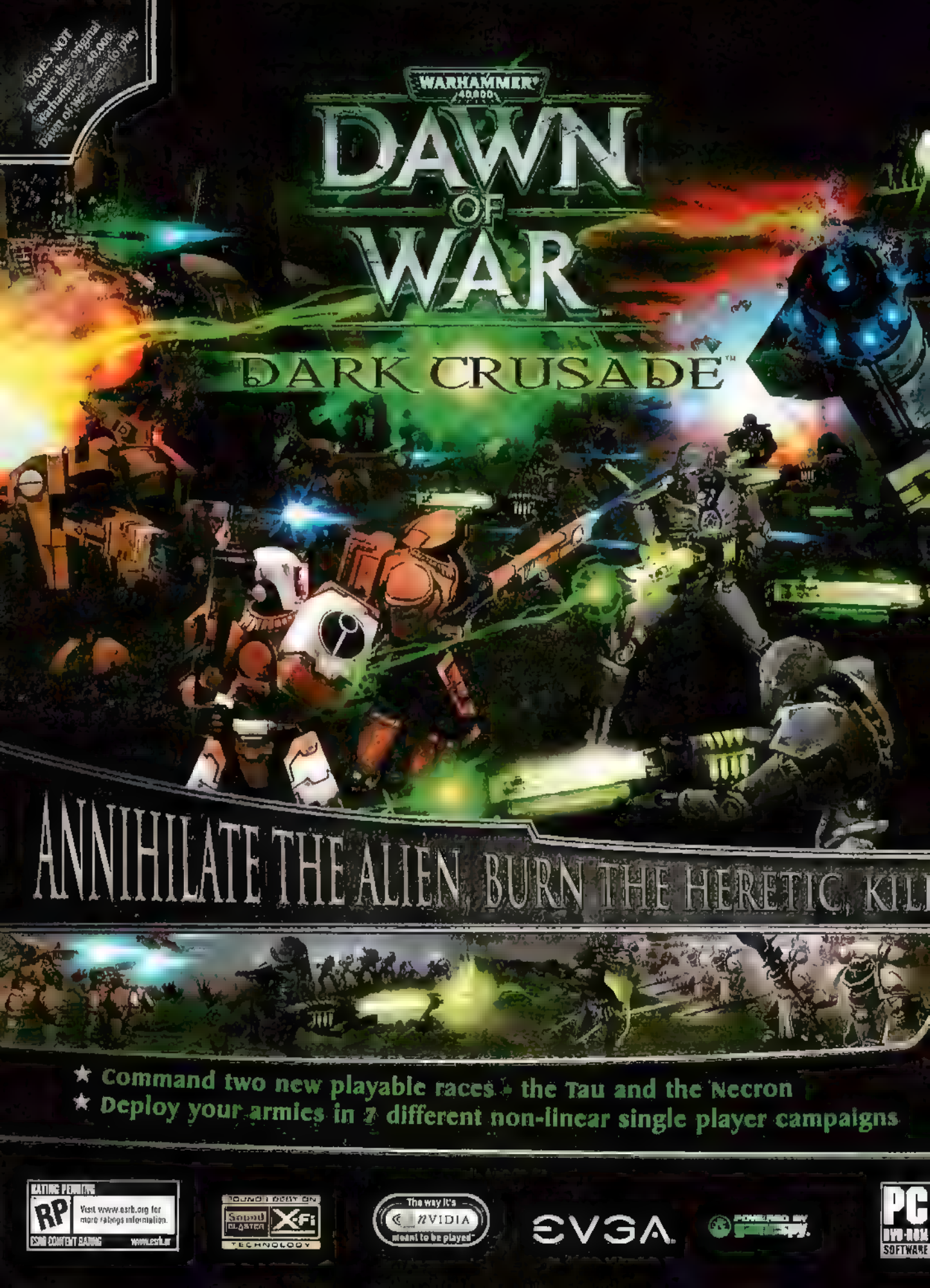
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RAINBOW SIX VEGAS

Reversal of fortune?

PUBLISHER: **Ubisoft** DEVELOPER: **Ubisoft Montreal** GENRE: **Tactical First-Person Shooter** RELEASE DATE: **November**

"ARE GAMES GETTING STUPIDER?" WE sometimes ask ourselves, reminiscing over graph-paper dungeon maps and notepads filled with security codes and mission coordinates. Those *seem* to be fond memories, anyway.

The crotchety old gamer in us takes Ubisoft Montreal's *Rainbow Six Vegas* as a hopeful sign that kids today aren't as badly off as they seem. What was once the preeminent thinkin'-man's shootin' series took a nosedive with 2005's *Rainbow Six Lockdown*, a game that confused "smart tactical operations" with ▶

THE SERIES SEEMS TO BE PULLING AN ABOUT-FACE

REAL-WORLD TACTICS

Shortly after *Rainbow Six Vegas*'s unveiling (and a demo that climaxed with a generic Las Vegas Strip hotel exploding, presumably from a terrorist attack), Las Vegas mayor Oscar Goodman publicly proclaimed the game to be a potential economic liability to his fair city—a proclamation that begs the question: How is a fictional terrorist attack in a videogame any different from a movie that depicts the same thing? A Vegas-based crime show like *CSI*? A Tom Clancy novel that culminates in the nuclear annihilation of the Super Bowl?

"We cannot speculate as to what the mayor would be referring to," says Roy, "but we're not making changes to the game as a result of his statement. The story line...is a work of fiction and should be held to the same standards as other forms of entertainment, such as books and films."

This isn't the first time a Clancy-branded game has come under fire. North Korea called *Ghost Recon Advanced Warfighter 2* a propaganda piece, but Ubisoft calls that balderdash. "Ubisoft is in the entertainment business," according to Roy, "and does not make political statements through its videogames." An especially strange situation, then, given that books and films frequently do.

GET TOGETHER. ROLL SOME DICE. HAVE FUN.
DUNGEONS & DRAGONS
PLAYDND.COM

carnival shooting gallery." Now, with Ubisoft Montreal back in the driver's seat, the series seems to be pulling an about-face. The first signal? "There will be a tactical map," says Ubisoft Montreal producer Stephane Roy, referring to the planning tool that was the *Rainbow Six* series' hardcore hallmark before alt-developer Red Storm's *Lockdown* chucked it out the door, "to orient the player in the environment, help him locate alternate entry points, evaluate direction and distance from the objective's location, and control the locations to send the team by using preset waypoints."

To describe the flow of your missions, the folks at Ubisoft Montreal have turned tactical common sense into a might-as-well-be-trademarked mantra. Observe, Plan, Assault. Observe: Invert-rappel down the side of a building with your night-vision goggles to peek inside a penthouse suite, or just slip your snake cam beneath a door. Plan: Choose your weapons and use the aforementioned tactical map—but keep in mind what they say about the best-laid plans. Heat-of-the-moment combat tools include an updated order system that lets you give fellow Rainbow teammates commands based on *their* location rather than the location of your crosshairs, and a new ability to "tag" two foes for teammates to concentrate on while you take care of the rest. As for Assault: If all goes according to Plan, blink and you'll miss it. / Sean Molloy

YOU CAN PLAY THROUGH THE ENTIRE STORY CO-OP WITH UP TO FOUR PLAYERS.

MULTIPLAYER, VEGAS-STYLE

We interrogate producer Stephane Roy about *Rainbow Six Vegas*' multiplayer modes.

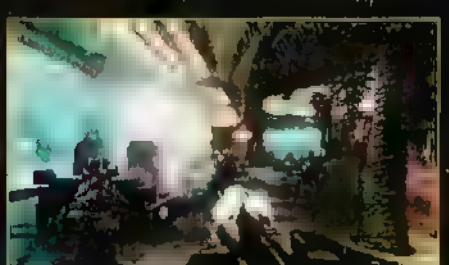
CGW: What multiplayer modes can we expect? Do any of the old modes like Free-for-All, Team Adversarial, or the objective-based Rivalry return?
Stephane Roy: Expect new online co-op and Adversarial game modes as well as some of the modes from previous *Rainbow Six* titles. Attack and Defend is a new team-based adversarial game mode in which one team assaults while the other team defends an objective. Your mission objectives vary from one map to another and include hostage rescue, defusing bombs, and recovering intel.

CGW: What's in it for the co-op crowd?
SR: You can play through the entire story with up to four players, and once you're done, you can play missions in Terrorist Hunt with your friends. You can either play through co-op as [single-player protagonist] Logan or your online multiplayer character.

CGW: The console versions of *Lockdown* introduced a multiplayer "achievement" system that many felt only succeeded at making the good players better. The PC version of *Vegas* is using a multiplayer customization system, too, to earn new equipment and achievements—how will this work?
SR: While I can't share a lot of details about this aspect of the game, I can assure you that we are working to create a great package in terms of customization with the PC version.

CGW: Will multiplayer lean on large outdoor or intimate indoor maps?
SR: The *Rainbow Six* franchise is well known for its close-quarters battle elements, so we're focusing on giving the same kind of experience in the multiplayer maps, outdoor and indoor.

▲ Raining a mess of Fremont Street.



▲ Economic liability: shooting slot machines.

▲ "What happens in Vegas...Oh, god—my face!"

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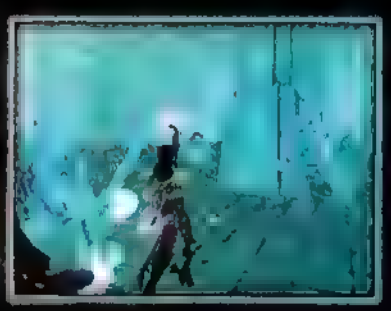
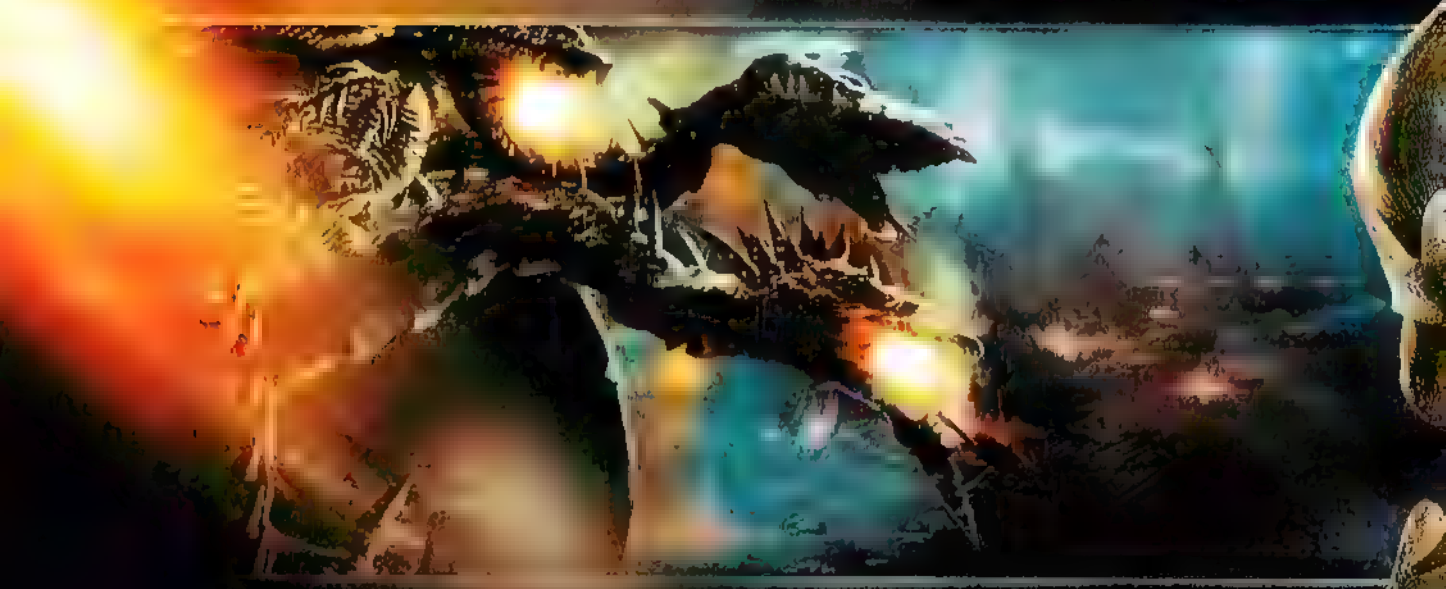
FIVE HEROES, ONE FATE, INFINITE ADVENTURE





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MAGE KNIGHT
APOCALYPSE
COMING FALL 2006

1992–1997
Under the name Epic MegaGames, Rein's company makes shareware like *Jill of the Jungle* and *Jazz Jackrabbit*. Unreal? Not so much. Surreal? Possibly.

1998
After years of screenshot teases, *Unreal* ships. The 3D-engine wars begin as Epic licenses out its engine.

1999
Unreal Tournament revolutionizes multiplayer games. Spot-on bots, multiple modes, and alt-fire modes on weird weapons make us declare that *UT* topples the house of *Quake*.

2004
At the Game Developers Conference, Epic kicks off the next-gen wars by unveiling its new Unreal Engine 3—and then licensing it to just about everyone on Earth.

2006
Gears of War is the first Unreal 3–based game to market. If only it weren't just on the Xbox 360...

THE CGW INTERVIEW:
MARK REIN

Epic Games' epically opinionated VP gets real BY DARREN GLADSTONE

INTERVIEW

CGW: YOU'RE DEVELOPING GAMES FOR just about every platform. Where do you see PC gaming now?
Mark Rein: It's at a crossroads. We're in a multiplatform world these days, and you'd think that the Xbox 360 and PS3 would be good things for PC gaming. Next-generation games are expensive to make, and few publishers will give developers the money to make a blockbuster game for just one platform, so the PC seems like an obvious place to recoup some of the costs.

The problem, however, is this: The percentage of PCs sold that are completely inadequate to play those cross-platforms games is rising rapidly due to the massive success of Intel's strategy to sell complete platforms to system manufacturers. This is causing the proliferation of Intel integrated graphics and is exacerbated by the trend of people moving to laptop systems as their primary computing platforms. It's the same problem—most laptops come with integrated graphics chips, which can't run the games targeted toward next-gen consoles. This leaves only the high-end PC gamer, and that's not enough of a market to support PC gaming as a thriving industry. In my opinion, Intel is to blame. For some reason, they've decided an $800 PC shouldn't be as capable as a $300 game console, even though the cost to them to fix the problem is probably only a few dollars per PC.

The bottom line is that the majority of consumers unknowingly buy computers that suck for playing decent games. Intel could easily fix this, but they're not a graphics company, so it isn't a priority for them—even though, in my opinion, it could be one of the best things they could do for their business.

CGW: Wasn't this always a problem, though? People always need to upgrade to play the "latest and greatest" games.
MR: No. You didn't need a graphics card to run *Doom II*. Every PC in its day could play it. If someone tries to run *Doom 3* on a computer with integrated graphics today, they're likely to be so turned off by the performance—if the game runs at all—that they're pretty much lost to us. If the industry can't sell graphically compelling games to a large part of the PC audience, then eventually publishers might decide it isn't worth producing them at all. The decision to abandon the PC gamer will be a lot easier for publishers when Xbox 360 and PlayStation 3 installed bases go up, the prices of the consoles drop, and developers start making second- and third-generation games that take greater advantage of the hardware. It usually takes 18 months or more to make a game, so that time is coming sooner than you think.

2007
Unreal Tournament 2007 will be ready for mass consumption in early 2007. Epic promises.

CGW: How would you fix it?
MR: Well, Intel is doing a great job with the Core 2 CPU. They're back at the top of the performance pile, and we're happy to support them. However, they need to provide a better graphics experience so that $800 PCs can run games designed for next-gen consoles well enough so that people might get hooked and consider upgrading to higher-end machines. We're talking about Intel, though, so don't hold your breath.

One possible glimmer of hope is the recent merger of AMD and ATI. The combined company will be capable of selling the holy trinity of PC parts: CPU, GPU, and motherboard chipset. Unfortunately, Intel's Core 2 processor appears to outperform anything AMD currently makes. Maybe AMD will realize that they can offset this by selling manufacturers on overall system performance, not just CPU performance. Perhaps they can mate one of the decent midrange ATI graphics chips with a decent-performing CPU. They could kick Intel's butt in benchmarks that test combined graphics and CPU performance, forcing Intel to either develop a better graphics chip or buy one from Nvidia. Maybe this will finally wake up Intel. I can dream, can't I?

CGW: It's a good dream, but let's talk games. *Gears of War*, specifically. It's coming on November 12 to the 360. What's the deal with a PC version?
MR: There is no PC version. This is a 360 game. The 360 blinders are firmly on our heads to make the best Xbox 360 game that we could possibly make and to push the 360 as hard as we can possibly push it. If we were trying to make the game on two platforms, it wouldn't be possible to achieve that. Could *Gears* come to Windows? Perhaps someday, but not now.

CGW: *Unreal Tournament 2007*, by comparison, is coming to the PC and the PS3. That doesn't push the tech as hard?
MR: One of the important design goals of *UT* is to be the ultimate multiplayer game, even though the majority of players might not ever play it online. One of the performance challenges with multiplayer games is that we have to provide good performance whether there are six guys on the screen at one time or 16. So we have to leave room in the design to ensure that, when the game fills up with players and the action gets intense, the performance is still great.

Conversely, in a single-player-focused game like *Gears*, we can really push to the edge of the platform because we know how many monsters are going to be onscreen in each scene, how complex each scene is going to be, where you're able to go. We don't know that with *UT*. People can be all over the map. And, with the transporter, they hop from one side of the map to the other in no time at all.

CGW: So how has this affected *UT2007*'s development?
MR: With *UT2007*, we've scaled back the number of game types so that we can make sure each one gets enough attention. We're concentrating a lot of effort on taking Onslaught, which was hugely popular in *UT2004*, and moving that forward to an even better, deeper game type.

With the upgraded Onslaught game, which we're currently calling "Warfare," we're definitely giving people a deeper experience with some cool objectives, more teamplay, and smarter bots. The bots are better teammates this time. They naturally communicate with you. You can actually talk to them and tell them what you want them to do.

CGW: That's great to hear. One of *UT*'s strengths is its highly customizable bots. Are there many players who say, "Screw real people—I'll just play against the computer?"
MR: To be honest, the majority of people just play against the bots—and that's the dirty little secret of *UT*. That's why we work so hard to make sure that the bots are really, really good. Not only do we want to have bots able to fill up servers so you can go online and have the whole experience, but we also want you to be able to have a great game experience completely offline. And I can tell you right now, we're going to do a better job with the single-player. If it kills me, I will keep pushing for a real, traditional story-based single-player component to *UT2007*.

CGW: Single-player used to be a laddered-combat contest. How would you do it differently for *UT2007*?
MR: In my opinion, we have the tools now in Unreal Engine 3 to make *UT* both a single- and multiplayer game. *UT* already delivers several styles of gameplay that, bound together with story, could produce a very fun single-player game. There are so many cool places in a game like *UT*—the variety is amazingly compelling. The objective-based nature of the new Warfare mode is also suitable for a story. I think we can find a way to satisfy the *UT* player who enjoys multiplayer yet still have a good story-driven single-player element for people who are new to the franchise.

Then there's online. If you do go online, there's so much more you can see, because the community takes our tools and builds all kinds of amazing things that we never even thought of doing. Now that we have UnrealKismet, our visual-scripting system, it's much easier to do things that were previously programmer-intensive. I think you'll see a lot more depth in the mods produced for *UT2007*—and that's saying a lot, because many of the existing mods for *UT2004* are just amazing.

CGW: Will the single-player game be on the level of a *Gears of War*?
MR: No, I don't see that as our goal. I think we can provide far more depth to the single-player than previous *UT* games, but we're not looking to make something as deep and intense as *Gears*. But I still think we can provide a single-player game that makes you think, "Wow, now that was a ride!" when you've completed it. There's still a long way to go to make that happen, so only>

"THIS IS ME, WORRIED ABOUT THE STATE OF DEVELOPERS WHO THINK THEY CAN SURVIVE BY DOING SOMETHING CRAZY."

time will tell if we pull this off. But let's not forget that most of the people who played *UT* in the past already think it's a pretty good single-player game, even though what they're playing could be considered a simulation of online play.

CGW: Yeah, the Instant Action matches were always good for a quick fix.
MR: I played through the ladder, but since then, I'm like you. I pull up *UT* a couple of times a month for kicks; I just go into Instant Action. I choose a couple of levels I feel like playing that day, and I go off and play. That's my single-player. I don't really play it online all that much. You know, if you sat a non-*UT* player down at the game and turned off voice chat, he probably couldn't tell if he's playing against bots offline or people online. With bots, you just start the game up, and they're there. The game puts the right number of bots in each level, depending upon what the designers intended for that level, and you can set their difficulty to your liking. I think most people are perfectly happy playing the game that way.

We want to provide a better experience with each new *UT*. We want to make the game more immersive, make it more fun, have cooler gameplay modes, add depth where people want it, reduce complexity where it makes sense, and continue to make the weapons fun. As long as we do that, it's a game that people will want to come back and play.

CGW: It was widely reported that you called episodic gaming a "broken business" because of, in part, the need to recycle content and the poor pricing scheme. Do you feel the same way about expansion packs that you feel about episodic games?
MR: You know the old children's game "broken telephone"? That's what I think happened with those comments. People wrote about it completely out of context. Here's more or less what I said: We see a lot of developers coming to us and saying, "My business model is that I'm going to make a little bit of my game, and I'm going to sell it online through digital distribution, and then I'm going to have the money to make a little bit more and a little bit more." And I'm thinking, "Are you insane?!" There's a lot of talk about this right now, but very little success in this area. What I was talking about is this idea that you can make a little bit of a game, and then make the money to build the next chunk of the game, and repeat that until you're rich. That's just crazy. And that's not what *Half-Life 2* is doing. I mentioned in my speech that we have a perfectly good model for episodic content in place right now. I said that the gaming industry's already doing episodic content, and we've had it for years with franchises like *Mario*, *Unreal*, *Grand Theft Auto*, *Final Fantasy*, *WarCraft*, and *Half-Life*—all these games sell episodically and do very well. The more successful ones have expansion packs, which is also a good episodic business model. These models make huge amounts of money because the publishers can justify putting the marketing behind them.

CGW: You think that trying to end-run around publishers is a mistake?
MR: Yeah! Developers think, "Oh, I'm going to make a lot of money doing this." I'm sorry—you need marketing to sell games. Marketing is what sells games. What works for super-established brands like *Half-Life* will not work for you. You need to get a publisher, you need to build a brand, and you need to be marketed.

Making your game, putting it out there, and hoping that distribution alone is going to do the job for you is just ridiculous. The scary thing is, even after I gave this speech, somebody came up to me with exactly that kind of proposal. I billed the speech as an audience-participation event, and I had mics in the audience so that people could offer their opinions. One person supposedly said something along the lines of, "Well, you're just saying that because your engine's not suitable for that." And that's just not true. First of all, there are people with publisher backing doing episodic stuff using our engine already. They're developing the whole game and putting out pieces—which is a different philosophy from what I was talking about—and, hopefully, they'll do fine. They'll deliver the pieces in small enough timescales that you won't get fatigued, you won't get bored of it and say, "Well, I'm just going to go play something else now." But in the meantime they'll get proper advertising budgets and marketing support.

Epic has a perfectly good engine-licensing model for people who want to attack casual games, episodic games, online-only games, or things like Xbox Live Arcade. We charge very little up front, and then we get some participation in the revenue. So this is not an Epic interest thing. This is me, worried about the state of developers who think that they can survive by doing something crazy. I sell technology to developers and publishers, so my job is to ensure that the developers and the publishers are as successful as they can possibly be. So if developers die because they go into broken business models, that doesn't help me, and it certainly doesn't help them.

I'm trying to advise developers to be careful to not get sucked into the idea that digital distribution is going to be your savior and make you rich. You need marketing. And when digital distribution has the opportunity to be a savior and make you rich, guess what? The big, 800-pound-gorilla publishers will swoop in and suck up all the oxygen in the space. Nobody will find your game—it'll be relegated 10 levels deep on some distributor's portal because the big companies bought up all the spaces on the front page. That's just distribution acting like distribution—just like it does currently in retail.

CGW: So it still sounds like you're not personally a big fan of episodic content as it is now, though, right?
MR: I'm not the kind of guy who's going to buy a game and come back and buy a little small piece of a game in six months and buy another little small piece of a game later. I'll lose interest. Within those six months, there'll be 500 other shiny baubles to pull me away, and I won't come back and play. How often do you buy a game, not finish it, and then go back and finish it?

I hear some people saying we should have a television-style model, but that's wrong. Television is free, and it's backed by commercials. And those commercials make the experience free for you. Plus, new shows come out every week. Even *The Sopranos*, which has these big, long delays between seasons, still gives you eight or 12 episodes at a time to keep you interested. If they just gave you one every six months, they'd have a very small audience. Television also has more revenue streams than we do. They get a recurring revenue stream from subscriptions, kind of like an MMO. They can sell their shows into syndication, they can sell on iTunes, and they can package shows into DVD sets. Movies, similarly, can sell to network TV, syndicated TV, DVD, iTunes, and so on. My crystal ball doesn't show these kinds of lucrative aftermarkets for games emerging any time soon. //

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SHALL WE PLAY

Introversion's *DEFCON* wagers on no-win entertainment

PUBLISHER: Introversion Software DEVELOPER: Introversion Software GENRE: Real-time strategy RELEASE DATE: September 2006

PREVIEW

THERE'S THAT SCENE IN THE 1983 movie *WarGames* where Joshua, the blithe, creepy computer program that speaks in halting, mechanized Donald Duckese, is instructed to play itself. The screen explodes in dazzling achromatic arcs as Joshua runs all the possible (actually, 156) nuclear war scenarios, from predictable "US/USSR first strikes" to oddballs like "Thai subversion" and "Gabon takeover." The worlds destroyed a hundred times over in an orgy of blips zooming right, and all you could think was: Where can I play *that*?

It's shameful, then, that it has taken 23 years for someone to capitalize on a concept so glaringly obvious it seems virtually foolproof. "Often the best, most addictive games are the simplest, least gimmicky titles," says Introversion lead designer Chris Delay, the brains behind hacker-sim *Uplink* and genre-mutant *Darwinia*. "In reality, we often overlook or dismiss the most elementary ideas and pure concepts for seeming, well, too simple." In Delay's view, you don't want to spend hours playing demos and tutorials and reading manuals before you actually understand what you're playing. "However simplicity can be deceptive," he adds slyly. "*DEFCON* may be easy to learn, but it's insanely hard to win."

If you've seen *WarGames*, a quick glance at *DEFCON*'s (DEFense CONdition) lovingly austere screens instantly betrays what you'll be up to. Jousting with five other missile-slinging maniacs, you play as the military honcho of a country (North or South America, Europe, Russia, Asia, or Africa) moving quickly from brinkmanship to the total annihilation of your opponents' units and populations. On a flat glow-lined map of the globe, you jockey units like silos and fighters within your territories, tweaking radar coverage and sneaking subs as the DEFCON level escalates. The end of the world starts at DEFCON 5 and drops every five game minutes until you reach DEFCON 1...when the long knives—and nukes—come out.

"We realized fairly quickly that if you have six players all fighting each other, it can end as a bit of a shambles," Delay says. To modulate "fastest-nuke-in-the-West," Introversion added an Alliances system that allows players to team up. The catch: each individual's still playing to win, and scores are singular. "We take our cues straight from the Cold War atmosphere of paranoia and suspense," explains Delay, describing *DEFCON*'s in-game IRC server for public—or private—chatter. He says whole conflicts are born out of simple misunderstandings, like alliance members shooting down friendly planes suspected of scouting the area for strike targets. "This leads to arguments in the chat channels," he adds. "Followed by skirmishes at sea, followed by retaliation, before finally the whole alliance collapses and everyone starts nuking each other."

Backstabbers rejoice, in other words... *DEFCON* sounds primed to cater to your basest urges. "For me, the really satisfying moments occur when an ally manages to catch me completely off guard and pulls off the perfect betrayal," muses Delay. "It gives me confidence in the game design that such things are possible." He describes a staff test where the game had essentially ended (as far as he knew), but, in the space of a few seconds, his ally (codeveloper Gary Chambers) surfaced a load of subs right off his coastline and started, as Delay puts it, "nuking the hell out of my cities." It was perfectly timed, he says, and there was absolutely nothing he could do about it save sit back and laugh. "Betrayals like that can cost you millions of lives and take you from first to last place on the scoreboard," he adds bittersweetly. "Those subs had been traveling to that strike point for the entire game—he'd planned it from the very beginning."/Matt Peckham

> "WE TAKE OUR CUES FROM THE COLD WAR ATMOSPHERE OF PARANOIA AND SUSPENSE."
>
> –CHRIS DELAY, LEAD DESIGNER

GROUND UNITS	DESCRIPTION
SILO	Missile silos have two modes: launching nuclear warheads and shooting down incoming ordnance and units. Switching between modes takes time, and a silo is inoperative during a switch. Firing a silo reveals its position to all players.
AIRBASE	Launches fighters and long-range bombers.
RADAR DISH	All units extend radar coverage but dishes have the most, providing excellent coverage although they are defenseless.
SEA UNITS	
SUB	Invisible to conventional radar, but with no radar themselves. Subs launch nukes or torpedoes from any ocean location. They are strong against battleships. Can use sonar to destroy enemy subs, but that gives away the sub's location to other naval units.
BATTLESHIP	Antiship unit used to detect enemy units and to destroy opposing units without use of warheads.
CARRIER	Mobile version of a land airbase used to launch fighters and bombers. Can carry depth charges to use against subs.
AIR UNITS	
FIGHTER	Good against enemy aircraft and to scout out enemy territory.
BOMBER	Can carry one nuclear warhead each but are slow and vulnerable to attack.
NUKE	Boom!

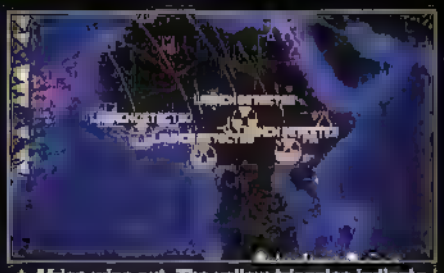
A GAME?

WARGAMES UPLINK?

Introversion's seminal hacker game *Uplink* includes a machine called the Protovision Game Server. Enter the password ("joshua") and the machine spawns a list of games, including a playable Global Thermonuclear War.

◀ Orange and green naval ships trade incendiary blips, but that doesn't mean they can't still kiss and be friends. "Now might be a good time to call it off and join the greens in an alliance," says Introversion cofounder Tom Arundel. "Here we're waiting for them to vote in or out."

▲ Timing is paramount. For example, silos that are placed in attack mode (triangles) can fire missiles, but they lose their ability to defend against incoming attacks.



▲ Africa wigs out. The yellow triangles indicate launch detections off the current view. "Africa would be wise to stop its attack and change all its silos back to defense mode," says Arundel.

HOW SHALL I NUKE THEE...LET ME COUNT THE WAYS

"We have some interesting alternative game modes," says Delay, calling them "*DEFCON* with a twist." Take Speed DEFCON, for instance. "It's the same game but it runs at 20 times real time fixed, so it's pretty hectic. And we also have a truly crazy mode called Diplomacy, where everybody starts on the same team. It becomes an exercise in making sure you aren't the first group target."

Then there's Office Mode, Introversion's bid to keep you entertained at work without getting you fired. "Yeah we're pretty excited about the Office Mode," says Delay. "We just thought it would be cool if a group of work colleagues could fire up a game in the morning, playing over the LAN to see them through the tedium of the working day." Say your boss turns up unexpectedly: just press ESC twice and shazam—instant minimize to system tray.

The team's even planning a leaderboard and tournament at release as a free patch. "We have loads of ideas," adds Delay. "This could be just the beginning for *DEFCON*."

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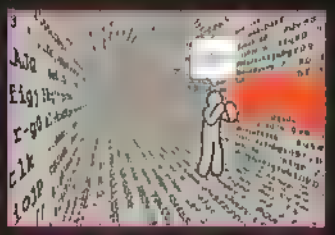
DUDE, MY HEAD! I'M NOT FEELING SO HOT RIGHT NOW. I KNOW THAT I HAVE NYQUIL capsules sitting at the back of my medicine cabinet somewhere. Ah, there they are. What's wrong with this stuff? It's not working. Let's see what the box says...expires...in...1998?? Yeesh, that can't be good. Suddenly I—hey, why is Abraham Lincoln in my room wearing a hat made out of meat? Whoa. This is messed up. I think I'm gonna lie down for a minute. Maybe you should come back in a bit. Go on, get out! I'm serious. What's that? You're not leaving without some freebies? All right, you asked for it. / The Freeloader

CGW.FILEFRONT.COM

Want to find these tasty bits of freeware—and lots more? They're all online right now at cgw.filefront.com

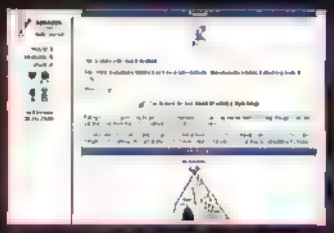
THE GAME: MultiHero
FILE UNDER: We don't [illegible] steamin' copyrights!

Nintendo may have *Super Smash Bros.*, but that game doesn't address the existential questions that plague me: What happens when *Street Fighter*'s Ryu drops shoryukens on a Battletoad? Who handles shrooms better, Mario or the Prince of Persia? Can anyone from *Dragon Ball Z* outpunch Spider-Man? Most importantly, though: What were the designers smoking when they decided to crossbreed 8- and 16-bit games? Whatever it is, I want some!



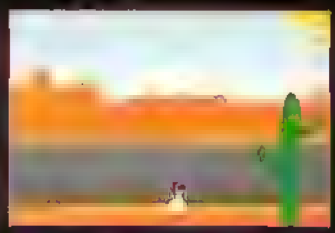
THE GAME: Flamewar
FILE UNDER: Forums are teh suck!

OK, time's confession time: I love pissing off people on message boards. Especially the *CGW* message boards (boards.1up.com), where I have many personas and names. I just can't help it. I type the dumbest, most obnoxious comments that come to mind—usually without any facts to back up my idiocy—and take great pleasure in watching people freak out. Imagine my joy now that someone's made a first-person shooter game based on that.



THE GAME: Kingdom of Loathing
FILE UNDER: Bits of [illegible] +5

How the hell does one describe *Kingdom of Loathing*? The best way is by telling thee of my quests as a level 2 pastamancer (yes, as in magical pasta): I've traveled the land slaying bunnies, quoted Sloth from *The Goonies*, and paid for new armor with stacks of meat. If I were to make some sort of "WTF? of the Month" trophy, this game would earn it. Go to kingdomofloathing.com and see for yourself. It's a stick-figure art connoisseur's dream.



THE GAME: Chicken vs. Road
FILE UNDER: Poultry puzzler

So many jokes ask the question: "Why did the chicken cross the road?" Aside from a couple perverted versions, nobody ever tackles the bigger mystery: "How'd he pull it off?" Finally, someone has. The game may be a bit on the short side—and really, it'd be nice to see more than just one stretch of road—but *Chicken vs. Road* is a fun little graphic adventure. Until you get that damn "Raindrops Keep Fallin' On My Head" song stuck in your brain.

DEVELOPER'S DESKTOP

What games do *they* want to play?

BRIAN REYNOLDS, the big huge brain behind Big Huge Games, has challenged gamers for years with RTSes like *Rise of Nations* and, most recently, *Rise of Legends*. He isn't ready to spill the beans on the next thing to *Rise*, but Reynolds did reveal what he'd love to play again now that he has a chance to breathe.

ARCHON

"The game that got me through the early and mid-'80s. It captured the magic of the famous *Star Wars* 3D-chess scene and combined strategy with shoot-em-up action in a way we seldom see these days. Of course, you had to play on the original Commodore 64; I carried around a special joystick to challenge all comers."

ULTIMA VI

"This game made me want to develop computer games for a living. It had such a huge world, the inhabitants all felt at least a little alive (they would go through a bit of a daily schedule, and they'd be somewhat aware of your reputation), and the transitions between environments were darn seamless for the day.

EMPIRE: WARGAME OF THE CENTURY

"Converted from an old PDP-11 game, this was the first strategy game to deploy the 'cities and units' paradigm. It got a little hard to manage toward the end (the number of units grew geometrically), but it definitely had that 'just one more turn' addictiveness."

CIVILIZATION II

"OK, look. I'm a game designer and programmer, so if I'm going to get trapped on some kind of a desert island, I'm for sure going to take one of my own games and tinker with it. And I'd better take one from back in the days when one programmer could mostly manage the code. These days, booting up *Civ II* reminds me of that golden era when Windows 95 first came out, DOS was dead and buried, and the graphics and soundcard people hadn't yet led us down the garden path to driver incompatibility hell, the modern equivalent of autoexec.bat hell."

WORLD OF WARCRAFT

"I haven't seen my level 60 priest in a year now. But when I typed /played and saw how many months I'd been playing this game (and these are 720-hour months, not the wimpy 168-hour 'man-month'), I realized that this one game may conceivably have accounted for more than 50 percent of the time I've spent playing computer games in my whole life."

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PHANTASY

Another MMO game crosses the great console divide

PREVIEW

PHANTASY STAR IS MASSIVE in another world—the one where the console crowd chases anime-eyed catwomen. But many PC people don't know that long before ArenaNet crunched out the line of *Guild Wars* code, Sega's sci-fi RPG series pioneered the whole notion of patrolling town hubs to make new buddies and run instanced raids. (That game was 2000's *Phantasy Star Online* for Sega's defunct Dreamcast system.)

Today, Sega's Sonic Team is close to completing its multiplatform sci-fi RPG *Phantasy* [illegible] big draw for [illegible] is that [illegible] PC—and, a richly stylized world with highly customizable characters in an action-heavy sci-fi MMO.

Unfortunately, being an action-heavy sci-fi MMO doesn't guarantee instant success here in the [illegible] most recent burnout in this category, [illegible] quickly turned into a postapocalyptic [illegible] wasteland despite garnering good reviews. So, what's Sega doing to combat the potential problem? Well, it's broken up into two parts. The first is a story-driven single-player game in which you take the role of Ethan Weber, tasked with combating an all-consuming dark force known as SEED. Instead of clinging to turn-based doctrine like most RPGs, *Phantasy Star Universe* feels and plays like an action game. You dodge, strafe, run—even button-mash and use combos—while switching between futuristic melee and missile weapons.

But brace yourself for some annoyance when you get to the second portion of *PSU*: Sega spokespeople say that even if you complete the 40-hour single-player game, you

> SEGA'S SCI-FI RPG SERIES PIONEERED THE NOTION OF PATROLLING TOWN HUBS TO MAKE PALS AND RUN INSTANCED RAIDS.

GIMME SOMEONE TO FIGHT

PSU plays surprisingly well whether you use an Xbox 360 gamepad or the keyboard and mouse. Combos are easy to execute, and combat is more involving than mere button mashing. Just watch out for these Grabold mofos—they're a major pain.

STAR UNIVERSE

PUBLISHER: Sega
DEVELOPER: Sonic Team
GENRE: MMO Action-RPG
RELEASE DATE: October 2006

get no boost for your multiplayer character before going online. No extra gold, no sweet superweapon for your newly victorious avatar. Nothing. Nada. Zip. Just a finished story and a cinematic pat on the back. Sega's spin doctors call it getting two games for the price of one, but c'mon—that kind of talk may fly in consoleville, but PC games as recent as *Titan Quest* allow you to take your single-player character online.

...h: Buy the game and you get ...ingle-player game—but the ... it'll cost you extra. Sega ... how much, but bank ... monthly fees for *Final* ...month). Considering ... to *Guild Wars* (which ...e), this could be a ...

...ome will miss player- ...really, though, can't ...but huge boss battles, ...nsters in PVE combat, ...ep players coming ...? Team Ziff hiked to ...t a day transfixed by ...n exclusive first taste ... / **Darren Gladstone**

IN CHARACTER
The unique races are highly customizable with anime flair. Choose from being human (*bo-ring*), Newman (elvish-looking magic users), CAST (robots), or Beast (melee monsters). Will you be able to resist the temptation to whip up a fembot hottie like this?

THE GANG'S ALL HERE
As in games like *Guild Wars*, this space station is one of the central hubs where you meet other players—or just stroll through the spacey megamall and resupply. And—big surprise—everything looks a whole hell of a lot sharper on the PC than on consoles.

PURPLE RAGE!
Every race has a special secondary super-power-up move. The CAST's SU... move summons heavy weaponry, while beasts (above) mutate into monsters.

PSU CRIBS
Whether you're finding interesting objects in dungeons or want to order stuff from the space-age IKEA, *PSU* lets you furnish your pad—or just stock your closet with some sharp new threads.

GAME OVER, MAN
The 20-plus dungeons in the game are loaded with larger-than-life boss battles. Like with Sparky here. Don't forget to switch to a first-person perspective when trying to snipe enemy weak spots.

COLUMN

GLADSTONED

Shooting the messenger...and the message

WORK WITH ME HERE!

SELLOUT. WHORE. CORPORATE shill. Disgruntled readers have called me all these names (and a couple of other creative ones that I can't list here). That doesn't bother me. However, a new trend is brewing that makes me violently vomit blood: Some game companies have this screwed-up notion that editors *really are* sellouts, whores, and shills. It's time for me to squash this rumor before it gets too out of control.

Screenshots held hostage, info doled out in precious droplets—magazines deal with this kind of stuff this every month. To be perfectly honest, most public-relations managers do a kick-ass job and "get it" (seriously, guys, much love), but when somebody thinks he can buy coverage—boy, you just ticked off the wrong nerd.

Before I signed on with *CGW*, I was a "real" reporter. Writing about videogames for a living didn't make me suddenly forget every lesson I learned in journalism school, and that's why I've decided to present, here, a few passages from my *PR/Journalist Relationship Operating Manual*. Follow these simple rules, and I promise I won't toss you out the window when you come to my office.

RULE NO. 1:

Never use the phrase "stay on message," or I will slowly choke the life out of you. Or cancel the story. You have an agenda—I get that—but I have my own angles as well, and delivering the message of your marketing department isn't one of them. I am not on your payroll. God help me, I have questions—both good and stupid—and I will ask them. If I wanted a blind recitation of facts, I would've just asked you for a FAQ to cut and paste.

RULE NO. 2:

Developers are people, *not* products. If I ask for an interview with a developer, I may actually want his opinion on topics *besides* his game. That's right. Sometimes I might want to hear what an industry luminary has to say about a big-picture topic. If your interview doesn't fit an agenda or deliver a specific "product message," please don't shut down the conversation before it even begins. Readers: Thumb through this issue, and I'm sure you'll find some mysterious hole where we would've loved to get the thoughts of a particular developer, but couldn't—thanks to those shadowy people in the background who silently squash good interviews without seeing the big picture.

RULE NO. 3:

Be honest. This is kind of a no-brainer for life in general. If you're talking to another magazine, website, ham-radio operator, whatever—just let me know up front, because it affects *my* story. It won't hurt my feelings, really. And I swear that I won't bite your head off. Much.

"WHAT CAN I DO?"

Just because you're reading this column, don't think I'm gonna let you off the hook. I need your help. In our never-ending quest to deliver a top-quality magazine every month, we're slaves to getting the latest tasty screenshots and info. That means we're at the publishers' whims. Do something about it. Call them on it. Call *us* on it. Demand more out of all your news sources. Send some e-mails. Make some calls. Stick your head out the window and scream so the whole world can hear that you're mad as hell, *AND YOU'RE NOT GONNA TAKE IT ANYMORE!*

Darren Gladstone
Darren is still taking his court-ordered anger management classes. If you feel the same way, e-mail darren_gladstone@ziffdavis.com.

BE HONEST. THIS IS KIND OF A NO-BRAINER FOR LIFE IN GENERAL

THE GOOD, THE BAD, THE UGLY OCTOBER 2006

THE GOOD

GOOD RIDDANCE, E3 EXPO!

Several major publishers recently pulled out of Los Angeles' annual E3 Expo (the gaming industry's biggest trade event), citing astronomical costs with little benefit. This prompted E3 showrunner Doug Lowenstein to pull the plug on E3 in its current form...which itself prompted a collective sigh of relief from industry insiders, newly free from the media circus that E3 had slowly degenerated into.

THE BAD

GOODBYE, E3 EXPO!

True, E3 was a wretched hive of scum and villainy...but if you managed to wade through the piles of freebie-seeking fanboys, scantily clad booth babes, and loud, obnoxious displays, some genuinely cool stuff awaited. E3's dismantlement particularly hurts smaller developers, as it means one fewer opportunity to get their products in front of a few thousand eyeballs.

THE UGLY

HELLO, E3 MEDIA FESTIVAL?

From the official E3 website (e3expo.com): "The new E3 Expo will take shape over the next several months. As currently envisioned, it will still take place in Los Angeles, described by [the] ESA as a 'great and supportive partner helping to build E3.' It will focus on press events and small meetings with media, retail, development, and other key sectors." Sounds like PR damage control—we'll believe it when we see it.

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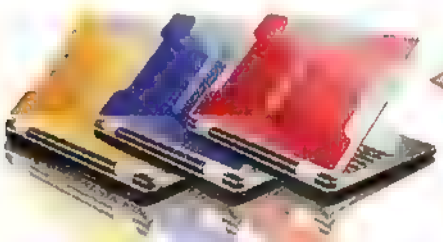

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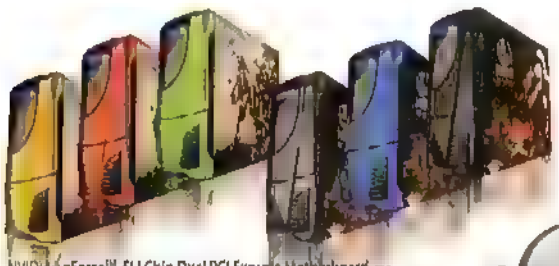

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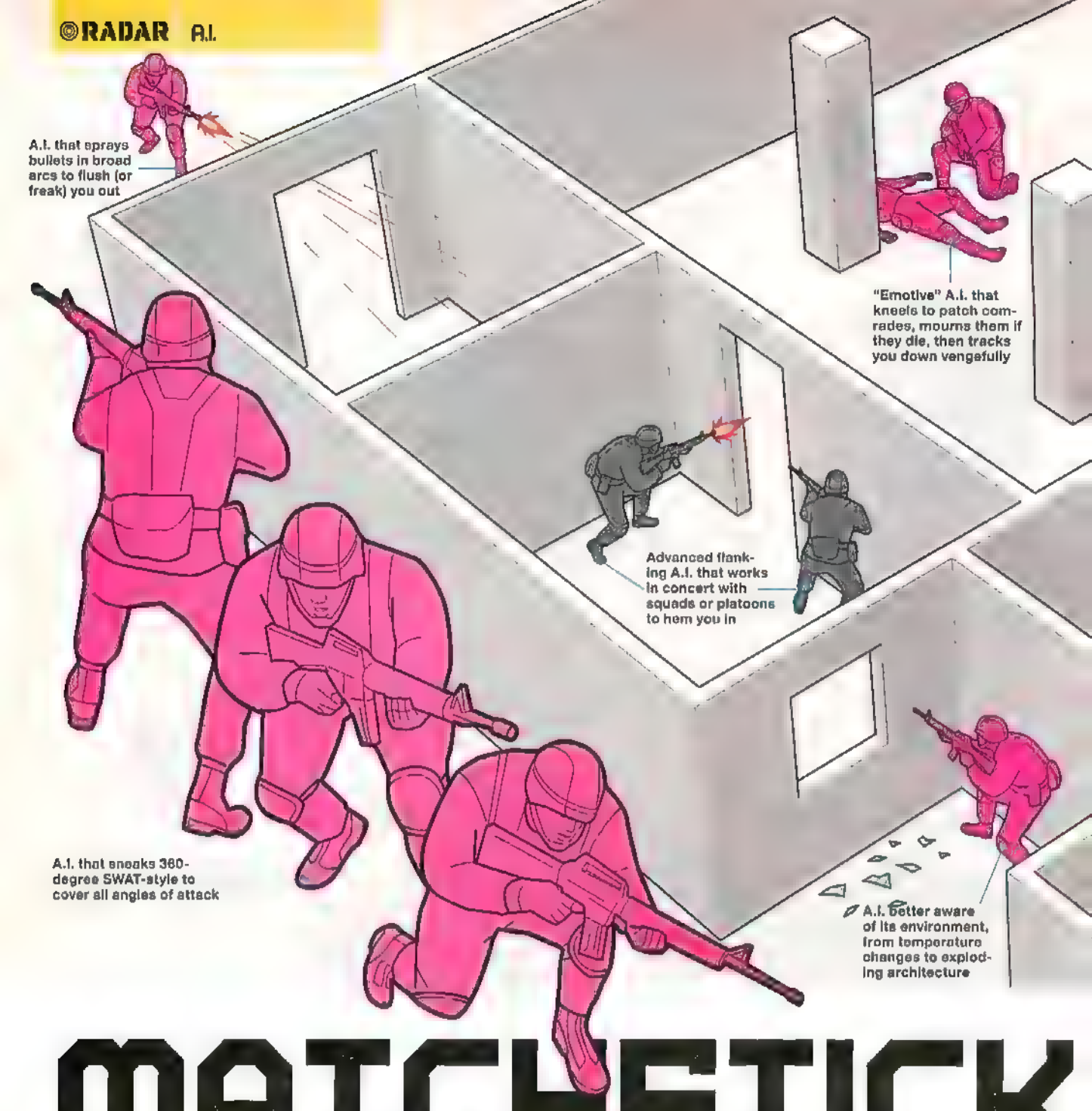
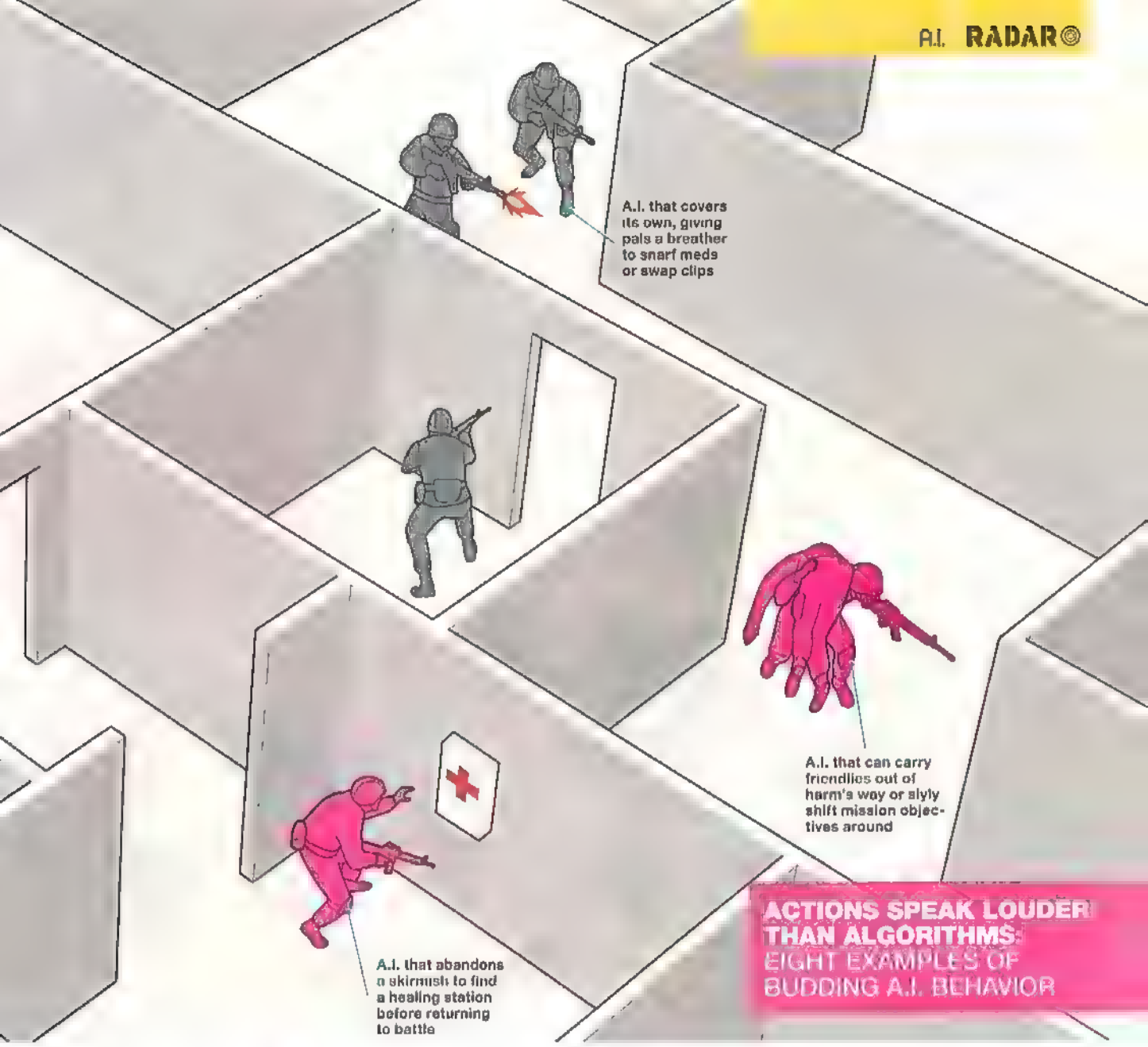


MATCHSTICK

Six industry insiders disabuse our A.I. illusions BY MATT PECKHAM

ROUNDTABLE

YOU KNOW THE DRILL: YOUR OPPONENT HAS X-RAY vision and always peeps your hidden network of bases. Or: You've discovered the other team never punts on fourth and 10. Or: Monsters pop out from behind sliding doors and go "boo!" Or: You can smack Trader Bob around on Monday, but you return Tuesday to find him healthy, beaming, and huggable. On the other hand, we call it "artificial" intelligence for a reason: It's not the real deal, caveat emptor, pay no attention to the algorithm behind the curtain. In hopes of shining a bit of light on these commonly ignored issues, we've assembled six industry bigwigs to hash out the how, what, and why of videogame A.I.>



ACTIONS SPEAK LOUDER THAN ALGORITHMS: EIGHT EXAMPLES OF BUDDING A.I. BEHAVIOR

MEN

THE BRAIN TRUST

▲ **Peter Molyneux**
Managing Director, Lionhead Studios
The Movies, Black & White, Fable

▲ **Warren Spector**
President and CEO, Junction Point Studios
Ultima Underworld, System Shock, Thief, Deus Ex

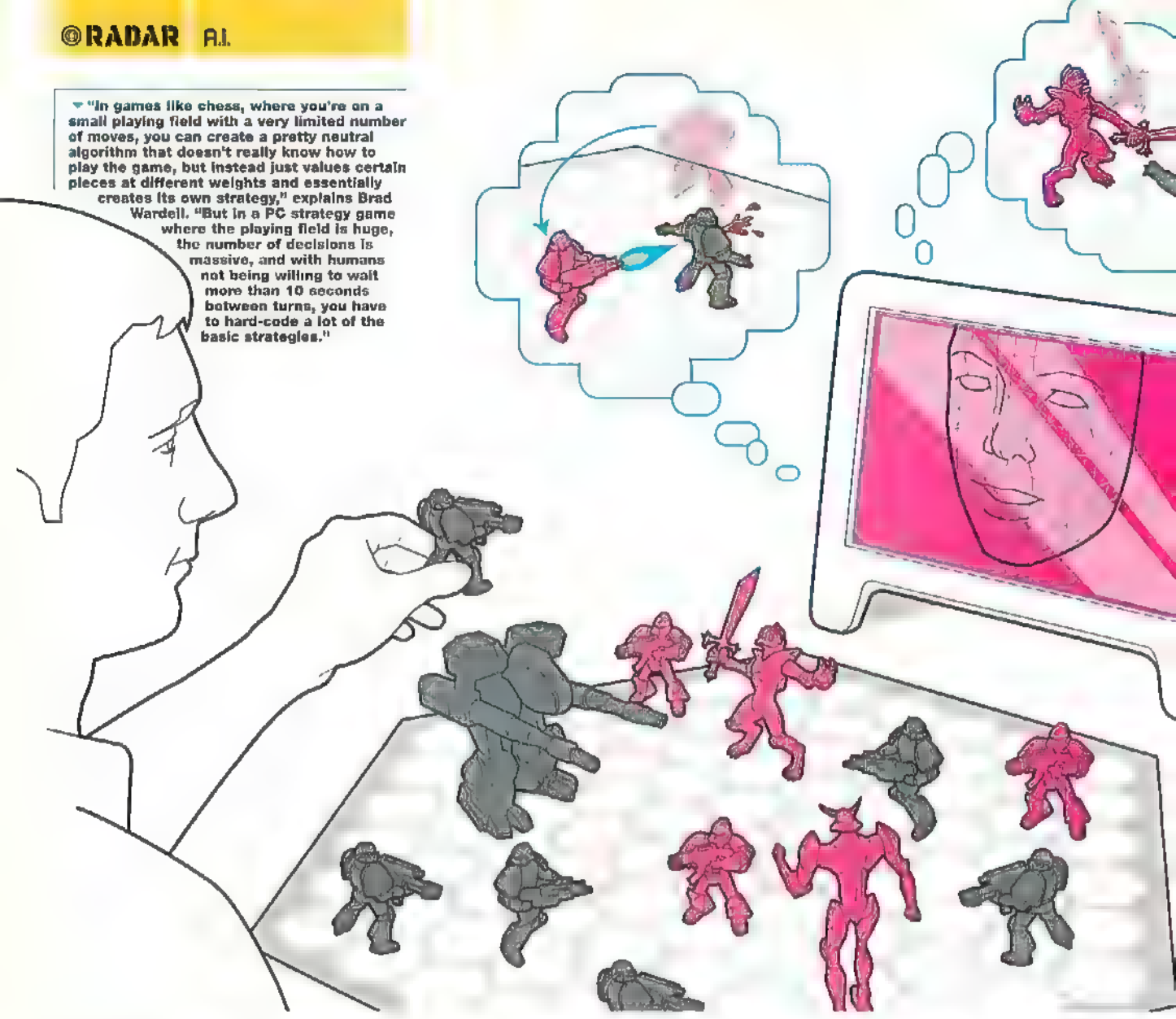
▲ **Brad Wardell**
President and CEO, Stardock
The Political Machine, Galactic Civilizations

▲ **Todd Howard**
Executive Producer, Bethesda Softworks
The Elder Scrolls: Daggerfall, Morrowind, Oblivion, Fallout 3

▲ **Mikko Mononen**
Senior Technical Designer, Crytek
Crysis

▲ **John Abercrombie**
A.I. Programmer, Irrational Games
BioShock

▼ "In games like chess, where you're on a small playing field with a very limited number of moves, you can create a pretty neutral algorithm that doesn't really know how to play the game, but instead just values certain pieces at different weights and essentially creates its own strategy," explains Brad Wardell. "But in a PC strategy game where the playing field is huge, the number of decisions is massive, and with humans not being willing to wait more than 10 seconds between turns, you have to hard-code a lot of the basic strategies."



CGW: First off, is game A.I. really "artificial intelligence"? Or is it just a gameplay convention?

Peter Molyneux: There's a misconception that A.I. in games is real. Ninety percent of the time, it's not, as real A.I. would be far too expensive in terms of processing power.

Warren Spector: I hate to be a philistine, but I'm in the camp that doesn't even think about it. I'm sure this is partly because I'm not a programmer responsible for coding this stuff or an academic getting paid to think about it—I'm only concerned with the player experience. As long as the A.I. accomplishes the goals of the game and offers a compelling experience for the player, you can call it whatever you want.

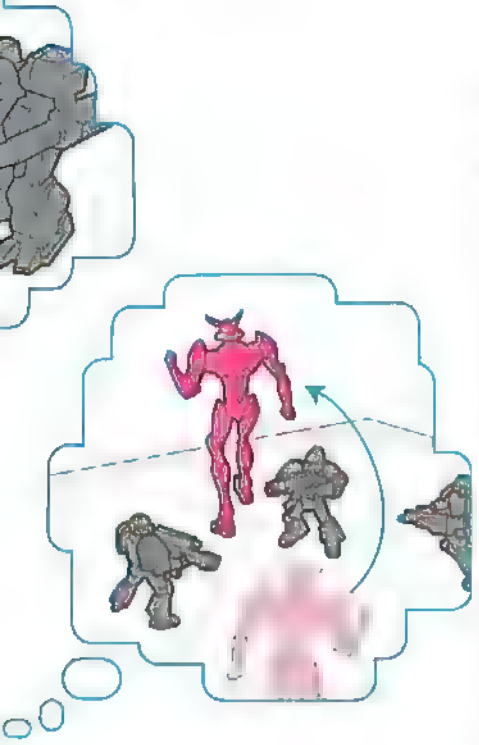
Todd Howard: [It] depends on the audience. At Bethesda, we define A.I. as intelligent behavior that the actors—NPCs, creatures, et cetera—engage in. So we're looking for real intelligence, on-the-fly decision making, strategies, and so on. From the consumer's perspective, A.I. is anything a character does. So scripted events, animation, and so forth all form the A.I. to the player, and that's the most important part—conveying the illusion of good behavior.

Brad Wardell: For the kinds of games we make, I take the heuristic point of view. My job is to get the computer players to play that particular game very well. This means developing strategies much like a human player, then incorporating those various strategies into the game.

CGW: What are some of the challenges and/or advances occurring in game A.I. development at the moment?

WS: Every game I've been involved with in the last decade or so has had to incorporate A.I. that does more than figure out how to attack the player more efficiently. "This time the A.I. takes cover!" just doesn't cut it in a game where the NPCs may or may not be your enemy, based on your in-game choices. And "Look at our amazing group-tactics A.I." is irrelevant when we don't know how the NPCs in a given scene feel about you—whether they love you, hate you, fear you, want to talk to you, don't care about you.... And let's not even talk about what happens when players can change their environment dynamically. The A.I. challenges of a game where you can fight, sneak, or talk your way past problems, in a world where there are many ways to get everywhere you—or the NPCs—might want to go... well, those are some interesting challenges.

Mikko Mononen: Creating the illusion of life. Imagine a watch. The watch may function even without its case and hands, but it's rather useless as a timepiece. A simplistic version adds the minute and hour hands and 12 dots to mark the hours. A more detailed and interesting implementation could add more markers, another hand to show the seconds, another for hundredths, maybe even the days of the month. These things don't reinvent the watch, but they do increase the level of the detail and feedback to the user. A.I. actions without feedback are perceived as chaos by the player, just springs unwinding and gears rotating. A simple behavior with proper feedback can look believable, intelligent, and complex, but complex behavior without enough feedback looks chaotic and random.



"I DON'T KNOW IF CHEATING A.I. WILL ALWAYS BE NECESSARY, BUT IT CERTAINLY SEEMS TO BE NECESSARY NOW."

—WARREN SPECTOR
TUNCTION POINT STUDIOS

BW: Faster CPUs have changed everything. We have fantastical advantages in computing power. *Master of Orion* came out in 1993, running DOS. That's the age of the 486. Back then, they didn't have the luxury we have today—i.e., having the computer player play by the same rules. It could literally conjure units out of thin air based on the difficulty level. One of the biggest advantages our computer A.I.s have always had is that they're multithreaded; the computer A.I. generates its strategy in the background while the human player is taking a turn. In an age of dual-core processors and Hyper-Threading, that means we have far more CPU cycles to compute strategies.

CGW: Is A.I. cheating for the sake of challenge, or to overcome behavioral limitations, or just as a shortcut, necessary by design?
WS: I don't know if cheating will *always* be necessary, but it certainly seems to be necessary now. Given that the goal is to challenge players in pleasant, entertaining ways, not to re-create human behavior, I suspect we'll be proud cheaters for the foreseeable future. If you're a programmer and you think I'm wrong about this, feel free to drop me an e-mail. And a resume. Oh, and a demo!

MM: When the environment is highly detailed, the description of the world is always going to be different for the A.I. and the player. Creating an artificial perception system that's loosely based on how humans sense the environment can make the A.I. act more like real humans, but there's always a constraint on how complex this model can be. In games, the greatest limitations are production time and processing power. Allowing the A.I. to partially "sense" the player through an obstruction, for instance, creates the impression of an A.I. behaving like a savvy human would in the same situation.

BW: Up until the "intelligent"—tough—difficulty level in *Galactic Civilizations II*, the A.I. gets no advantages over the human at all—and, in fact, is penalized in most of the difficulty levels. As for how we go about implementing our A.I., the way we are able to do this revolves around two development techniques. The first one is having a multithreaded computer A.I. That means that while the player is taking his turn, the computer players are generating their turns. It's not that our A.I. is better written than other games; it's certainly not. It is that our A.I. has a lot more time to calculate. Human players are a lot slower than the computer. By the time the human player has finished his turn, the A.I. may have had half a minute or more in the background to calculate. The second technique revolves around being reasonably good at strategy games and incorporating those strategies into the computer A.I. Techniques like hurtling, strangling, rushing, harassment and other strategies that are well known to hardcore strategy gamers are integrated into the computer A.I. as best we can.

John Abercrombie: There are certainly situations where a human can recognize something that an A.I. never will—or at least not as well—so you have to provide hints for the A.I. The hints aren't cheating, and they might also allow the A.I. to make mistakes as a human would, like searching in the wrong direction. But giving the A.I. the exact location of a player they can't see seems wrong to me—that's too much information. There's a balance between what the A.I. should and shouldn't know, and the player has to believe that the A.I. should know it.

CGW: Some have suggested building a world-class A.I. that doesn't need to cheat to beat the best human players is possible right now, but that development time and costs don't justify it. Your thoughts?
PM: It's possible, but is it desirable? A.I. must be balanced with game experience and that means that even the simplest academic A.I. has to be refined and tweaked in the name of the game being good. It should be possible for a game to focus on learning aspects of A.I. at its core.

TH: I actually don't care if it cheats. It's not a big goal of mine. I want the perception that it's not cheating—that is, the perception that it's making logical choices.

BW: I've often said the same thing online when some top strategy gamer buys *Galactic Civilizations II*, [defeats] the "intelligent"—best noncheating level—A.I. after a few weeks, and then posts that the A.I. isn't challenging enough. The cost of good A.I. increases exponentially, but the quality only goes up linearly. Creating an unbeatable A.I. can theoretically be done, but to what end? Of the 10 percent who can beat the best noncheating A.I. we make, how many of that 10 percent actually mind having to turn up the difficulty to the point that the computer players get another 5 percent to 20 percent in resources per turn? And is it really worth doubling your A.I. budget to satisfy that small percentage of unhappy users?

CGW: How can games better implement nonconfrontational or nonviolent A.I.? Is this limitation responsible for the need to have monsters of some sort in most every game?
WS: Man, I wish I knew how to answer this question. My "thinking" is that our ability to create compelling noncombat A.I. is pretty puny. The issue is creating characters that behave in ways that, given the context of a game or scene, elicit an appropriate emotional response in players. Take the guns away, and we lose the most easily elicited emotion—fear—and we're left with...not a lot. How do we make progress in the nonconfrontational space? Beats me—maybe someone in a garage somewhere is solving the problem even as we speak. If I knew how to solve this problem—and it's a *huge* problem for gaming, one that is really holding us back as a medium of expression and communication—I'd be making a very different kind of game.

TH: In terms of nonviolent interaction, I certainly think *Oblivion* has a bunch, though we haven't gotten away from time-stopping dialogue trees yet.

CGW: Soren Johnson of *Civilization* fame estimated in 2002 that A.I. was something like 2 to 3 percent of the total development cycle, and that it was usually integrated only at the very end due to lack of money and time. Has this changed in 2006?
PM: We have two projects currently under development—*Fable 2* and another unannounced—and we've had an A.I. team working on these projects from day one. I've since unearthed a fascinating feedback loop between our A.I. coders and game designers—the A.I. team is, in fact, alerting the designers to some unexpected but cool situations which are a result of A.I., as opposed to the designers asking the A.I. team to construct specific situations.

WS: Wow, 2 to 3 percent? That doesn't reflect my experience at all. It didn't reflect my experience even back in 2002. We've always had multiple, dedicated resources working on A.I., basically, from the start of the project to the end. I think all the highfalutin tech stuff ups the difficulty a bit, in that we can create more dynamic, more deeply simulated worlds. But, really, until people start making different kinds of games, the difficulty only goes up incrementally.

TH: We spent an enormous amount of our dev time on the Radiant A.I. system in *Oblivion*. It ended up not only being the character A.I., but the basis for how a lot of our quests worked. It›

also takes a lot of CPU time, so the more power we can get through the hardware, the better we can make it.

BW: There are really two issues here. First, it really depends on the developer and what priority they put on computer A.I. and how complex the A.I. needs to be. Secondly, what dual cores and SMP do is allow computer players to be more effective with less work because they can brute-force calculate better strategies.

CGW: How do you convince gamers to stop and pay attention to your "cool new A.I. feature" as games become increasingly free-form?
PM: A.I. is a bit like game physics—both are coming of age. A few years ago, we all got very excited when we had the technology to throw boxes around in a realistic way, and of course, gamers' reactions were sort of "so what?" Same thing with A.I. Our first attempts were pretty primitive, and it's only now that we're seeing more sophisticated A.I. appear in games. Still, consumers don't care if some technical advance is hard to pull off or ground breaking—they're only concerned whether new techniques make a game seem more realistic.

WS: There's an assumption in your question that players *should* care about A.I. They shouldn't. They should care about the experience you're providing—*whatever* it is. The overall experience of a game has to be a lot more than "acceptable" or you're doomed to failure in the marketplace. A.I. is just one component toward reaching the level of quality necessary to succeed, and how important a component it is will vary from game to game.

MM: There are several design principles in *Crysis* where we tackle that problem. They all allow the player to observe the A.I. reactions without engaging in combat. The first we call "veni-vidi-vici." The idea is that you're able to slowly seduce the A.I. into combat and observe their actions. The result is that you have the possibility to outsmart rather than outgun A.I. opponents. The second principle involves giving the player a chance to try each situation multiple times, thus prolonging the A.I. "lifetime" and allowing us to better "show off" its sophisticated behaviors.

CGW: With the whole "virtual pet" craze, isn't there a sort of sideways argument that gamers already react favorably to more lifelike A.I. for its own sake? Say, more mundane behavioral "coloring," like NPCs that take pee breaks?
WS: This is a huge question! First, we almost always sell our audience too short in gaming—don't even get me started on that rant. Second, we need to move past the idea that "lifelike" is the highest ideal game A.I. can aspire to. Finally, if your game benefits from NPCs taking pee breaks, have 'em pee—don't worry about the audience.

BW: You're definitely touching on a larger issue in the game industry, and that is, as it has grown, the [people] who make the big decisions are increasingly nongamers. Look at the copy-protection debacle we have now. People practically have to give skin samples to the game before they can play it. Similarly, I think many studio heads these days don't see how much people care about having a good single-player experience, which means competent computer opponents. They don't see that it does drive sales. Our average gamer is around 30 years old. They're smart, sophisticated people who want to be treated with respect and intelligence. The problem is that computer A.I. is rarely budgeted enough to make the difference it could make. Computer A.I., after all, doesn't make a good screenshot.

TH: Actually, I find the audience picks up on the small stuff and reacts positively to it. One of the little touches we put in *Oblivion* was to have the shopkeepers "keep an eye on you," while in their stores, and it is subtle, but lots of people eventually noticed. If we made the guards pee, I assure you people would care—and pick their pockets when they did so.

CGW: Can we expect to see more user-controlled A.I. customization in future games? Or does this jeopardize developer controls?
WS: I don't think this is an either/or thing. I think you'll see a little of both. Some developers, in some games, will allow players to tweak the A.I. explicitly. Other developers, in other games, will create adaptive systems that allow characters to learn from the player and adjust their behavior accordingly. It all depends on a game's goals.

BW: There's a general recognition that writing "smart" computer A.I. is very hard and expensive, and in many games, not a good investment. In those games, it makes sense for the developer to provide tools and extensions that allow the fan base to enhance the A.I. behavior to increase the lifetime of the game for the hardcore fans.

JA: There are games where tweaking the A.I. behaviors from an options menu might be appropriate, especially in sports or other games where the player is working with other A.I.s to accomplish a task. From a designer's perspective, though, those variables should be under the hood, and the A.I. would adapt correctly to each situation to fit the player's style.

CGW: With all the research into academic A.I., can game A.I. benefit from academic/game A.I. convergence?
PM: We're inspired by what the academic approach is, but because of the restrictions of the gaming world, we have to reinvent what academic circles pioneered decades ago. One of the biggest differences between academic A.I. and games A.I. is that we have a perfect rule-based world in which our A.I. can fit.

TH: Like many things in academia, it often has very little application in a real world or real game environment. Fuzzy logic is pretty basic, as are some of the others, so you see these things sprinkled in game A.I., where it needs it. I don't see games ever going the full "A.I." route as defined by academics.

JA: We have this great behavioral system here at Irrational that was developed as an academic project for modeling simulations of groups of characters. Nearly everything we do in the game A.I. involves using this system, and the ability to layer behaviors and rapidly prototype simplistic behaviors has made it an invaluable tool for designing and developing the A.I.

CGW: Thinking about game A.I. and the next decade or so, the Magic 8-Ball says....
PM: Some of the likely events are emergent A.I., which is becoming a significant force because it's so central to a game's premise. A.I. gives us the ability to support custom characters in games not only visually but psychologically.

TH: It's pure development time, so the bigger budget games are going to push A.I. forward more than others. Procedural animation is one technique that you will really perceive in games soon that'll make you believe the characters are behaving better. I know that's purely a visual, but don't discount that aspect when it comes to "lifelike" behavior.

BW: I think in the next five years we'll start to see macrounit coordination in computer players. I think we'll also see options in games that allow more CPU to be dedicated to computer players, just as we have options for video displays. Let the guy who wants a more challenging game with a powerful system get full use out of it. I also think you'll start to see A.I. players learn between games. This happens organically in online games, but computer players presently start from scratch each session. After that, I think we'll see A.I. become increasingly conversational. The drive for immersion will mean having RPGs and MMOs that have NPCs that act like real characters. And from there, those technologies will find themselves back in strategy games where you're playing *Diplomacy 2016* and you're truly negotiating with the A.I. Germans in an online game, and [*CGW* editor-in-chief] Jeff Green—from his resting home—will be cursing profanities via chat for ganging up on him... again.

CGW: Descartes said, "I think, therefore I am." You say?
PM: I play with him, therefore he thinks!

TH: I prefer Socrates: "I drank what?"

BW: I think beyond a set scope, therefore I am.

WS: Wow, Descartes in an interview about games? I'm too blown away even to answer!

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–TODD HOWARD, BETHESDA SOFTWORKS

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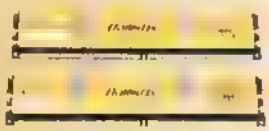

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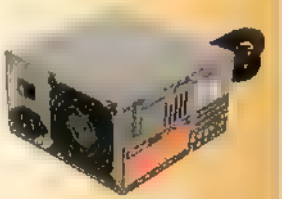

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MICROSOFT FLIGHT SIMULATOR X

Flying the friendlier skies

FUTURE FLIGHT

Microsoft plans on releasing a DirectX 10 upgrade for *FSX* after Windows Vista comes out. We peeked at some DX9-to-DX10 comparison screenshots and saw a dramatic graphical difference—particularly with regard to water.

PUBLISHER: **Microsoft** DEVELOPER: **ACES Studios** GENRE: **Flight Simulation** RELEASE DATE: **Winter 2006**

PREVIEW

"WE'RE ADDING GAMING ELEMENTS TO *Microsoft Flight Simulator X*," says ACES Studio lead designer Paul Lange, signaling what may be the most significant change in the *Flight Simulator* series' 24-year history, "in order to give players something to do beyond just flying over the countryside."

In the past, Microsoft designed its *Flight Simulator* games as pure civilian-flight sims made for hardcore virtual pilots who revel in spending carefree hours simply flying from one airport to another. Previous *Flight Simulator* dev teams have been so focused on "as real as it gets" that they've never tasked someone with enforcing traditional gaming features such as objectives and missions. That's why the presence of Lange (whose résumé ranges from 1996 first-person shooter *Powerslave* to 2003's *Microsoft Combat Flight Simulator 3*) is such a departure. His expertise is gaming, not aerospace engineering, and his goal is to make *Flight Simulator X* attractive to people who would normally fall asleep trying to figure out how to work a Cessna's Garmin GPS system.

FSX's new hook is a powerful, simple-to-use mission-creation module used to craft the 50 missions that will ship with the game. The built-in missions range from the relatively simple (search for a missing camper in snowy mountains) to more challenging, frantic tasks such as rescuing workers from an exploding offshore oil rig. ACES has already provided the mission creator to a number of third-party developers, so a large number of community-developed mission packs should be available the day *FSX* is released.

This attitude of cooperation toward third-party developers is another radical departure for Microsoft, which has, by its own admission, historically treated this group with indifference at best. While dedicated community developers were once forced to craft hacks and find holes in the code in order to make their creations work, Microsoft now actively provides software development kits (SDKs) to third party developers. The company has even created a new community development team lead position (currently held by Brett Schnepf), charged with making *FSX* as third-party accessible as possible.

Skim Seattle's skies in a TV news chopper.

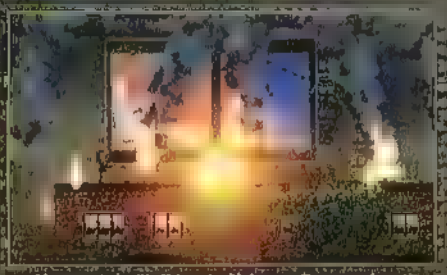
But none of these changes fly in the face of what's come before. *Flight Simulator X* continues the series' tradition of absolute realism and the trend of increasingly exact virtual landscapes and city skylines, accurate aircraft models, and little details that make the world feel more alive. Wildlife roams the countryside, cars drive on the streets below, and fuel and luggage carts scramble around the airport as you taxi in. Despite Microsoft's friendlier attitude toward third-party developers and newfound focus on "the game," *Flight Simulator X* is still hardcore at heart.

Jeff Lackey

NONE OF THESE CHANGES FLY IN THE FACE OF WHAT'S COME BEFORE.

"IF YOU LITTLE BASTARDS MAKE ME MISS ONE MORE MINUTE OF *LAW AND ORDER* WITH YOUR FIGHTING, I SWEAR I'M GOING TO COME DOWN THERE AND SMITE YOU ALL."
-GOD

▲ "I wanted to make my own engine, if only to prove I could do it," says maker Garry Newman.



▲ Newman is "talking to Valve software about selling *Facewound* over Steam."

FACEWOUND

Garry's Mod maker goes 2D

PUBLISHER: **TBD** DEVELOPER: **Facepunch Studios** GENRE: **Side-scrolling shooter** RELEASE DATE: **TBD**

PREVIEW

IS HE OR ISN'T HE? GARRY NEWMAN is at a kind of career crossroads where modmaking merges with professional programming. "When people ask what I do, I usually dodge the question and say 'self-employed.' The problem with telling people you're a developer," he says, "is that the next question is, 'Oh, yeah? What games have you made?'"

Surely all-in-wonder *Garry's Mod*, which is about to go from for-free noodleware to polished e-tail product on Steam's digital-delivery pipeline, counts for something. So, too, does Newman's commitment to the craft: "I love *Black & White*–style software, where you build stuff to do stuff. I suppose programming itself is a supernerdy game that only a few people dig playing." Still, Newman's an emerging gamemaker of another stripe, indifferent to market pressure and next big things. Though willing to hear out admirers and hash it out with detractors, he makes what he wants, when he wants, the way he wants (although we suspect he'd say he's more doofus than iconoclast).

On his monitor at the moment: side-scrolling shooter *Facewound*. "The idea," he says, "is '*Counter-Strike* meets *Mario*'—2D gaming with modern graphical effects—and the control scheme is the standard WASD-and-mouse combo. In the tradition of *Mario*, we don't have much of a story...actually, we don't even attempt to tell a story. It's all zombies and guts and guns. Except I'm English, and we have a somewhat limited familiarity with weapons, so it's mostly *Counter-Strike* stuff with a few exceptions—chainsaws, Molotov cocktails, miniguns. I'm trying to stay away from power-ups, but when you blast something, a bunch of green s*** flies out. You can collect it and use it to purchase new weapons." You read it here.

As its moniker implies, *Facewound* is a stupid/funny affair through and through—perhaps the product of too much time spent patrolling somethingawful.com's untamed and often sidesplitting spoofs. "We try to make ourselves laugh along the way," Newman says. "Why aren't games funny anymore? We're always adding funny things as we go along—probably pretty hardcore humor, though...pedophiles and whatnot. We're not censoring ourselves. If it gets a laugh, it's in." /Shawn Elliott

OVERRATED/ UNDERRATED YOUR MONTHLY GUIDE TO THE OVERHYPED AND OVERLOOKED

SIDEKICK

OVERRATED: CANNON FODDER
Sorry—hordes of nameless, faceless grunts that catch bullets with your name on them don't make you feel like you're part of some bigger battle.

UNDERRATED: CLIPPY
Whether you're battling dangling participles in the grammar dungeon or having trouble double-jumping over sentence fragments, Clippy's always been ready to assist—heck, he even helped us write this here magazine!

ILLUSTRATION BY SEAN BALLASKDD

▲ Turn off safe search and visit Newman's *Facewound* development blog at www.garry.tv.

PUBLISHER: 2K Games DEVELOPER: Irrational Games GENRE: First-Person Shooter RELEASE DATE: 2007

PREVIEW

UNDER AR

Irrational's Ken Levine talks proms, clowns, and a post-E3 *BioShock*

ASK IRRATIONAL GAMES PRESIDENT Ken Levine about *BioShock*'s Electronic Entertainment Expo accolades and he'll throw out everything from "awesome" to "mind-blowing." Scrapping with brulsers like Crytek's *Crysis* and Maxis' *Spore*, *BioShock* went on to win 17 awards (including several "Best of Show" honors). "It was like being prom queen," says a giddy Levine. "We're not used to being prom queen. I'm still wearing my tiara."

Still teasing an amorphous 2007 release date, Irrational's multiplatform hybrid sci-fi FPS remains shrouded in mystery. We know it's set at the bottom of the ocean in a mythic 1960s utopian art-deco megalopolis called Rapture, has loose ties to writer/philosopher Ayn Rand's controversial meganovel *Atlas Shrugged*, and that it takes place after a horrible mutagenic war involving Rapture's fanatical idealists. "The creepy thing about the city of Rapture is that the world doesn't know this society's fallen apart," says Levine. "Music still plays, vending machines still audibly hawk their wares, and so on." He references a contraption with an image of a "scary" clown—when you walk by, it shouts, "WELCOME TO THE CIRCUS OF VALUES!" ("I should know, for I am indeed the clown voice actor," says Levine.)

Like a deep-sea refuge for Dr. Moreau, think of *BioShock* as a *Wild Kingdom* of the weird. It posits an ecology of hulking Big Daddies in corroded diving suits protecting waifish Little Sisters, the latter in bow-tie skirts and scrambling on stick-thin legs to harvest and process a gene-modding substance called ADAM from dead bodies, as their foes—drug-jazzed Splicers—sneak or stalk in the shadows. Enter you, playing the anomaly as usual but in a spontaneous ecosystem swarming with hostiles. "It's very much like GTA in the sense that once you open up parts of the world, you can always return to them," says Levine, commenting on Rapture's free-form framework. "And remember, none of this is scripted. You kill a Splicer, and the Little Sisters come out of their hiding places to harvest ADAM from the body. And the Big Daddy comes out to protect that Little Sister." The world of *BioShock* is always humming. In other words, Rapture's denizens go about their business with or without you, trying to scrape by in a world gone nuts. "How you want to interact with them is up to you," adds Levine.

When it comes to interacting with your character, of course, the mechanics may get a bit ghastly. Though the team wants a clean break from *BioShock*'s spiritual predecessor (the *System Shock* series), the echoes of self-modification are undeniable. The difference: *BioShock* involves a slow survival-driven descent into drug-jacked madness. Much of the game apparently hinges on your ability to pinch harvested ADAM from the Little Sisters without bailing Big

▲ Don't expect marimbas and dancing crabs to be waiting around the corners in Rapture.

▲ Manipulate the dangerous relationship between Big Daddies and Little Sisters.

▲ Much of *BioShock*'s backstory about crazed tycoons is told through logs and messages.

Daddies or tangling with Splicers. Once acquired, the material (called plasmids) can be used to mod your ability to relate to the environment—say, thermal- or air-pressure change—but only a few at a time (the development team likens it to a deck of cards with limited slots). Other plasmids can be sprayed like pheromones to lure Splicers into direct confrontation with Big Daddies, leaving, say, a Little Sister open for easy pickings—do you kill or just steal from her? "*BioShock* adds moral choice to the equation of gameplay choice," Levine says. "The game adapts to support your intentions."

Indeed, if a single word defines *BioShock*, Levine says it is "choice." "Our goal is to sentence play-by-numbers to death," he continues. "We don't want to tell the gamer how to play; we want them to tell us how they're going to survive. Let's face it—this is where games are going. RPGs get it—*Oblivion*—action games get it—*GTA*—and now it's time for shooters to evolve." Levine and team, in fact, view *BioShock* as "the deepest shooter ever made." "We think it's going to bring about a real change in the shooter genre," he says. "Let's face it...the FPS has gotten kind of stale since *Half-Life 2*."

Those might be fighting words, considering the positive reaction to Valve's recent *Episode One*—then again, Levine's the brains behind trailblazers like *Thief* and *System Shock 2*. "We intend to be the stake in the heart of 'run down the corridor, shoot the monster who pops out of the closet, rinse, and repeat' school of FPS games," he says. "If you want to go deeper—if you want to hack, if you want to craft, if you want to explore the depths of our genetic powers—think X-Men mutations—then *BioShock* will be there for you as well. But even if you're just into shooters, the story line, the A.I., and the world are really something you've never experienced before."

Will that story line be dynamic enough for multiple endings? "There's a fair amount of choice in the game's story, primarily around how you relate to the Big Daddies and Little Sisters," teases Levine. "And as Forrest Gump might put it, that's all I have to say about that now."
/Matt Peckham

UNREAL VS. UNREALITY

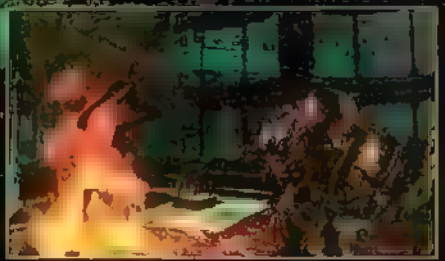
"We're 100 percent Unreal 3.0," says Irrational Games president Ken Levine. "Somebody got it in their head that we're not, and that notion's replicated itself across the gaming-verse. The real standout visually is the water. People who saw the water at E3 literally gasped."

AY-EYE-AY-EYE-O

"The A.I. in *BioShock* really is something new," says Levine, offering the following list of behaviors he claims you'll witness in *BioShock* (and that you've never seen before):

- Weaker A.I.s hiding behind stronger ones
- A.I.s mourning the deaths of their friends
- A.I.s running to health stations to heal themselves
- A.I.s looting corpses and machines
- A.I.s pulling weaker A.I.s out of the line of fire (a Big Daddy will actually grab a Little Sister by the scruff and pull her to safety)

ESSURE



▲ Splicers aggressively scour Rapture's levels for other inhabitants to steal ADAM from.

▲ Splicers cling spider-like to ceilings...and drop down on unprotected Little Sisters.

▲ Security cameras can either be avoided or manipulated to interact with other characters.

THE HOT SHEET

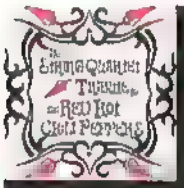
TEN THINGS THAT ROCK *CGW*'S WORLD

1 THE NEXT BEST THING

Enter Aesop Rock, he of solid rhymes and heavy beats. Combine with Jeremy Fish, street artist extraordinaire. Together, the two crafted this limited-edition short-story art book and 7-inch record about the creative process. Our advice: Grab one for $25 on upperplayground.com before they're gone.

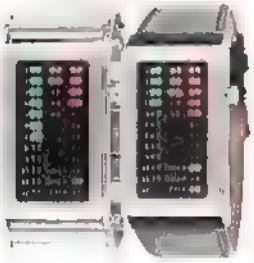
2 A GOOD PSP GAME?

Finally, we've found a reason to brush the dust off our PSPs—no joke! *Tekken: Dark Resurrection* is best portable fighting game around. And, well, we like the bowling minigame. Karate strike!



3 ALL STRUNG OUT

Want to seem upper-crust and still get that modern music fix? Try The String Quartet Tribute's classy covers. No, we aren't eating caviar while playing *WOW*. Just listen to these guys rock "Californication" and "Higher Ground." Trust us.



4 IBIZA LED WATCH

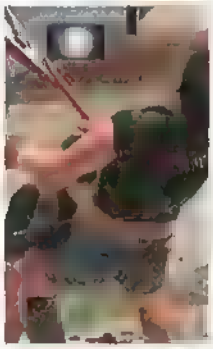
Here at *CGW*, we embrace the inner nerd, but sometimes, you need to let it shine. Thinkgeek.com sells this *Trek*-tastic LED-laden timepiece for $140. Go on—you're worth it.

5 INTEL CORE 2 DUO

Well, the results are in (see Hard News, pg. 108) and it's official: AMD is no longer the gaming speed king. Intel reclaims the crown—big time.

6 GET *LOST*

When a DVD set of *Lost*'s second season showed up in the *CGW* office, the big mystery became: "Who the hell has it now?" Everyone wants to see all the behind-the-scenes special features.



7 DISC OF THE DEAD

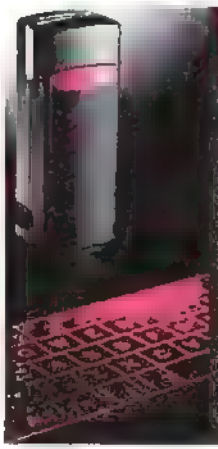
Endless waves of the shambling undead, trapping you in the mall—could a game possibly be more perfect? Some gameplay quirks aside, Capcom's Romero tribute *Dead Rising* is reason enough for any zombie connoisseur to buy an Xbox 360.

8 PHILLY CHEESE

What? You haven't seen the messed up FX sitcom *It's Always Sunny in Philadelphia*? This season alone, the show's dealt with steroid abuse, crack, welfare, underage drinking, and the physically challenged. Politically correct, it ain't. Funny, it is.

9 NINTENDO

We finally laid our hands upon the DS Lite and were ashamed we missed out on so many good original games for so long (try *Phoenix Wright: Ace Attorney* and *Trauma Center: Under the Knife* if you doubt us). That's to say nothing of Nintendo's upcoming Wii console. If you haven't done so already, preorder, stat!



10 BLUETOOTH LASER VIRTUAL KEYBOARD

Welcome...to the wooooooorld of tomorrooooooow! We think $190 is a small price to pay for a laser-beam keyboard. It works via Bluetooth—and comes in handy during biz trips to the Death Star.

PIPELINE

Save some money for these upcoming games!

SEPTEMBER 2006	PUBLISHER
Caesar IV	Vivendi Games
Call of Juarez	Ubisoft
Company of Heroes	THQ
Dark Messiah of Might and Magic	Ubisoft
Faces of War	Ubisoft
Just Cause	Eidos Interactive
Lego Star Wars II: The Original Trilogy	LucasArts
NBA Live 07	Electronic Arts
Open Season	Ubisoft
Overlord: The World Is Yours	Vivendi Games
Splinter Cell Double Agent	Ubisoft
Stronghold Legends	2K Games
TimeShift	Vivendi Games
OCTOBER 2006	
ArchLord	Codemasters
Battlefield 2142	Electronic Arts
F.E.A.R. Extraction Point	Vivendi Games
FIFA 07	Electronic Arts
Guild Wars Nightfall	NCsoft
Left Behind: Eternal Forces	Left Behind Games
Maelstrom	Codemasters
Evidence: The Last Ritual	DreamCatcher
Neverwinter Nights 2	Atari
Phantasy Star Universe	Sega
Resident Evil: Deadly Silence	Capcom Entertainment
Sam & Max: Episode One	Telltale Games
Sid Meier's Railroads!	2K Games
The Sims 2: Pets	Electronic Arts
Test Drive Unlimited	Atari
Tiger Woods PGA Tour 07	Electronic Arts
Warhammer 40,000: Dawn of War—Dark Crusade	THQ
Zoo Tycoon 2: Marine Mania	Microsoft
NOVEMBER 2006	
Brothers in Arms: Hell's Highway	Ubisoft
Medieval II: Total War	Sega
Need for Speed Carbon	Electronic Arts
Star Trek: Legacy	Bethesda Softworks
FALL/WINTER 2006	
Age of Empires III: The WarChiefs	Microsoft
EverQuest II: Echoes of Faydwer	SOE
Gothic 3	Aspyr
Microsoft Flight Simulator X	Microsoft
World of WarCraft: The Burning Crusade	Blizzard

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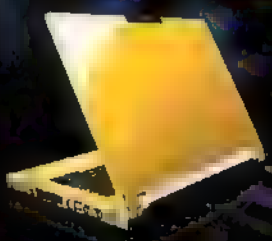

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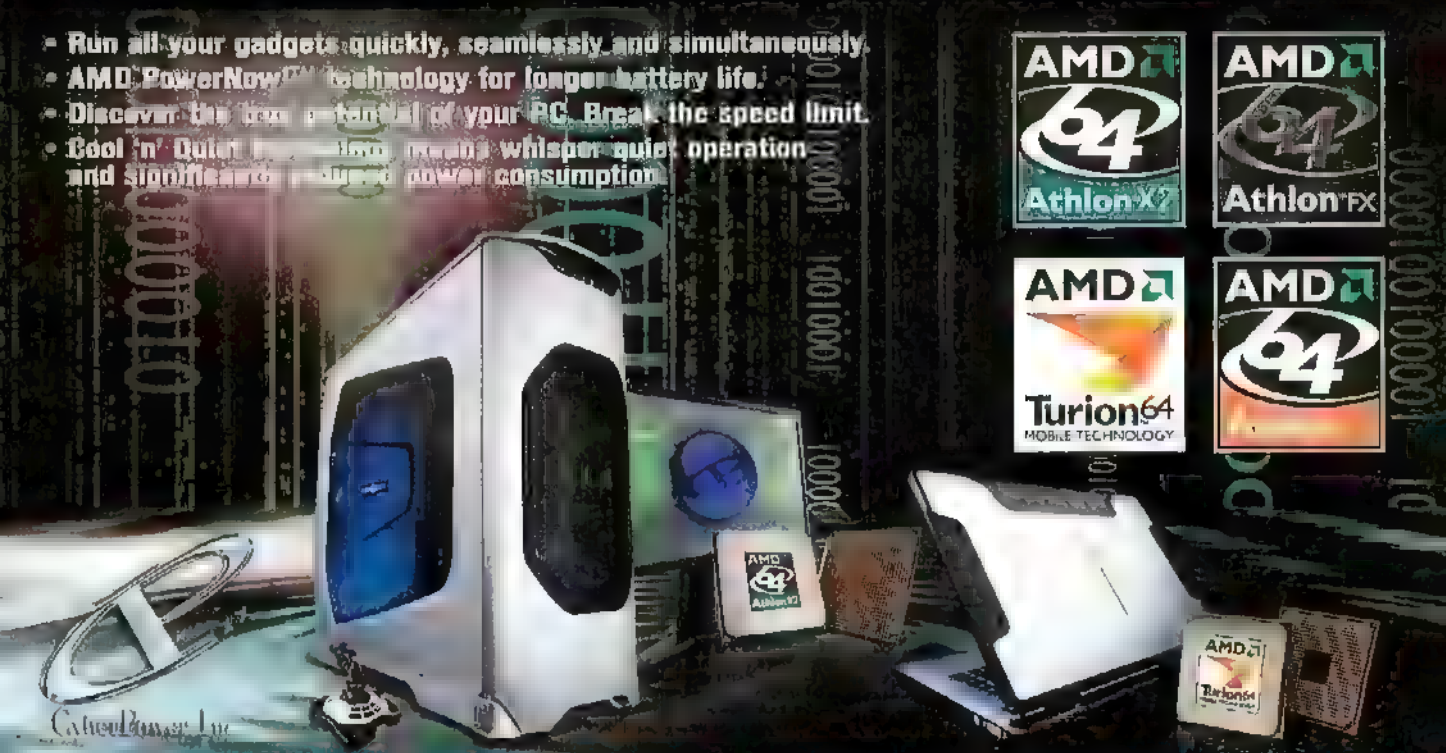

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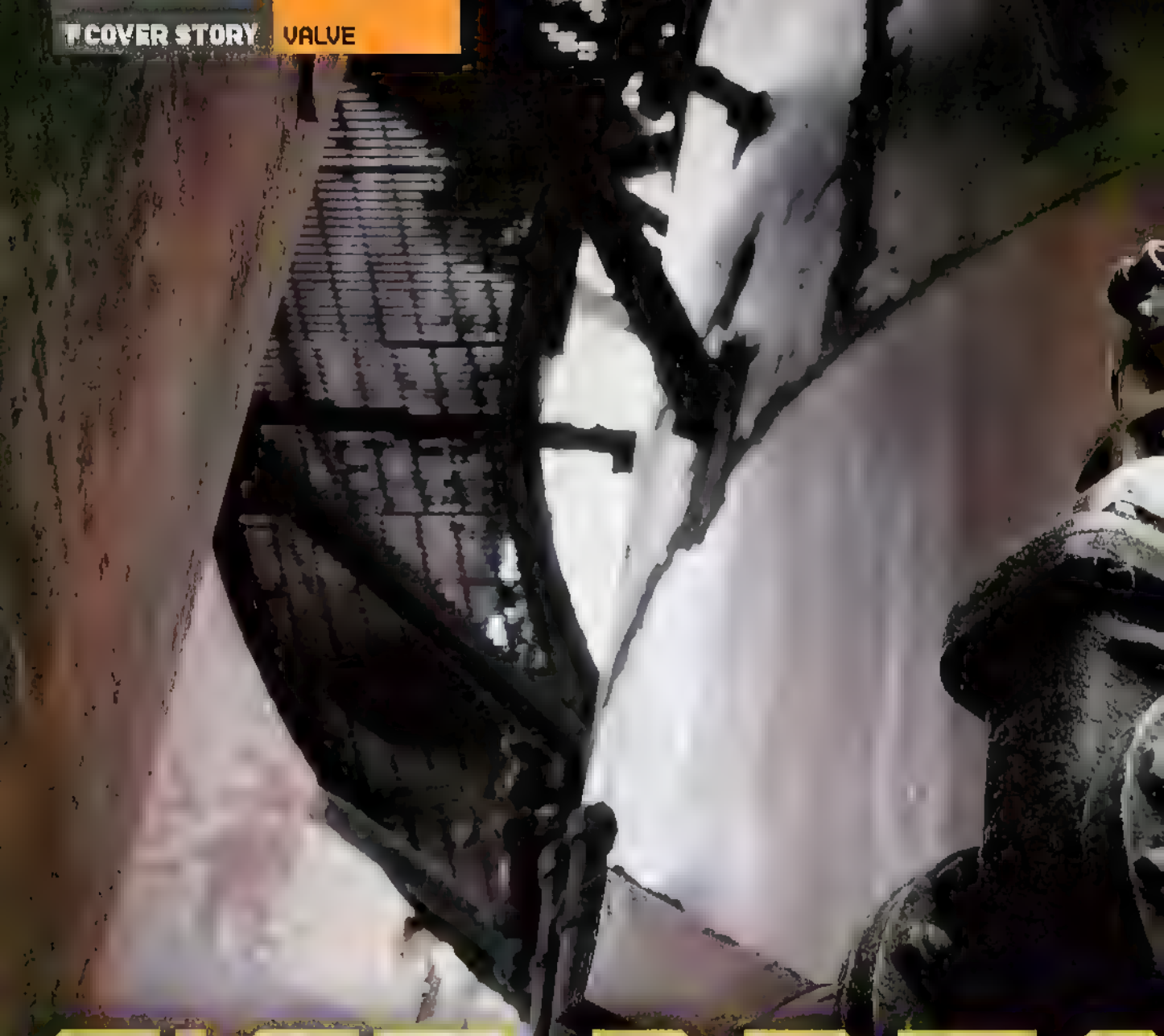


PIPE DREA

Valve Software turns vaporware tangible and student project into showstealer

BY SHAWN ELLIOTT AND DARREN GLADSTONE

EXCLUSIVE

VALVE'S TRIPLE THREAT—*TEAM FORTRESS 2*, *PORTAL*, AND *HALF-LIFE 2: EPISODE TWO* packaged together and piping from Steam to your PC sometime this season—encapsulates the company's past, present, and future. If *TF2* is the outfit's tardiness (or perfectionism) incarnate, it also represents Valve's ability to find big leaguers in the bush leagues, to take mod makers, as was the case with *TF* creators Robin Walker and John Cook, and position them to produce blockbusters. *Portal*, itself an offshoot of student-developed software, promotes the tradition. Imagine seven programmers from Redmond, Washington's DigiPen Institute of Technology showing their senior project to Valve reps and signing on that same day. Meanwhile, *HL2: Episode Two*, breadwinner and main event, at once holds the line and heralds things to come, epitomizing why a visit to Valve today offers a glimpse of its tomorrow.>

72 TEAM FORTRESS 2
78 PORTAL
80 HALF-LIFE 2: EPISODE TWO

M5

Left to right: writer Marc Laidlaw, *Half-Life 2: Episode Two* project lead David Speyrer, *Team Fortress* cocreator Robin Walker, and Valve cofounder and managing director Gabe Newell.

CLASS ACTS

PYRO
"A great skirmisher, the Pyro often serves as a first line of defense. His flamethrower and incendiary rockets are difficult to avoid, making it easy for the Pyro to weaken enemies before an Engineer's sentry gun mops them up. On offense, the Pyro is terrific at harassing the enemy's defense, since it's hard to maintain a solid defensive line when you're on fire."

SPY
"The Spy excels at the black arts of infiltration and assassination. With the ability to disguise himself or even disappear entirely on command, the Spy creates havoc behind enemy lines. He's an enemy's worst nightmare—a dangerous foe indistinguishable from a friend. If you prefer guile to brute force, the Spy is what you're looking for."

ENGINEER
"The defensive backbone of any team, the Engineer builds useful devices such as sentry guns and health and ammo dispensers. Tactical placement of these devices and the ability to maintain them under fire are the keys to being a successful Engineer. If you're better at planning and thinking than fighting, you're a natural-born Engineer."

SNIPER
"Nobody beats the Sniper at long-range combat. With a little time to find a perch and dig in, he can significantly slow an enemy advance. If knocking the helmet off a Soldier at 400 paces sounds fun, then the Sniper is the class for you."

TEAM FORTRESS 2 Seven-year switch

CHARLIE BROWN, PROJECT lead: When we started *Team Fortress 2*, we set out to make the best-looking, best-playing class-based multiplayer shooter. We studied *Team Fortress Classic*, since we're founding *TF2* on it, and wanted to settle on a complementary look. "Realistic" wasn't the way to go. So we started studying several styles, and given the exaggerated nature of the game—the nonrealistic weapons and stuff—it seemed natural to lean toward a nonrealistic look.

Once we decided that, the first question was: "What will characters look like in this world?" Obviously, we wanted what you could call aspiration characters: characters players want to play as. Plus, when another player shows up on your screen, you want to know right away whether he's friend or foe. So we have something we call a "read hierarchy." When someone shows up onscreen, we want you to be able to identify what team he's on and what class he is—so, say, if he's friendly, you can figure out how you want to team up, work together, et cetera. Silhouettes are essential, especially when identifying someone at a distance, so we went superdistinct.

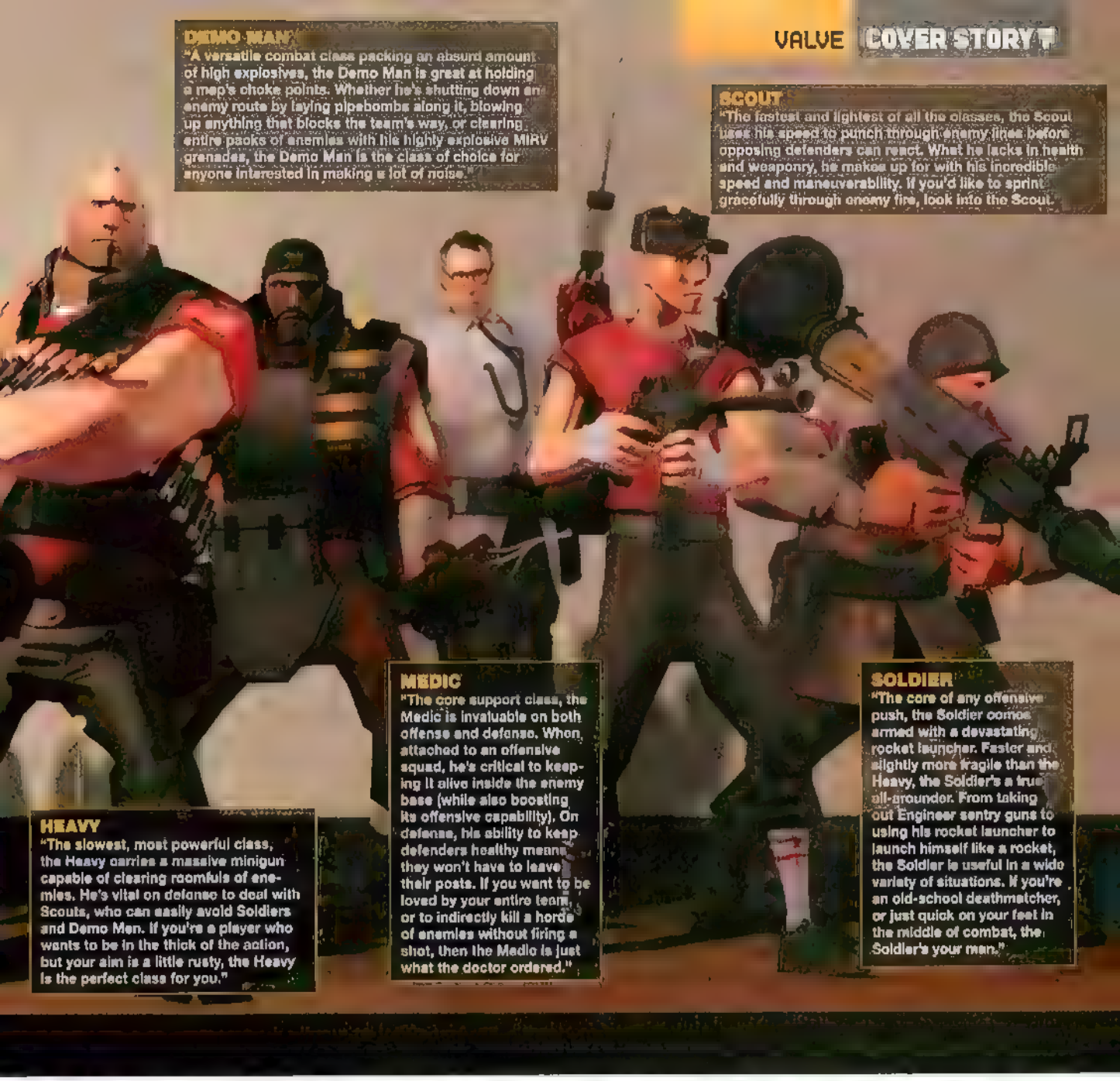
Robin Walker, cocreator: [*Pointing at a projection of* TF2*'s Pyro*] To give this character a sophisticated, less cel-shaded look, we've built this gradient of color up the body where it gradually gets brighter, drawing the eye to where the character gestures and holds his weapons.

CB: Since we wanted something stylistically sophisticated, we worked out a way to implement Phong shading in real time. This creates nice highlights on the characters—it brings out some of the folds in their clothing and makes them a bit more interesting than comparatively flat cel-shaded characters. In addition, it actually makes figures stand out from their surroundings, so it's easier to identify danger.

[*Again pointing at a projection*] Here's 2Fort [*see glossary, pg. 74*]. We apply the same principles to maps, too. With two opposing teams in such close proximity to each other, it's tough to settle on a plausible environmental excuse—why would one faction build a base 100 yards from another? But when the setting is more iconic, that sort of sense-making isn't necessary. Space would've worked, but we're tired of the "space marines" thing, so we tested other themes that said "wacky weapons" and found the vibe in '60s spy-meets-sci-fi movies. You have that nice retro feel, along with the high-tech equipment that does all the stuff that you'd want it to do without having to explain it. Instead, it's like, "This looks like a thing that shoots lasers." No need to ask how or why; it does what it does.

CGW: Like *Get Smart*.

CB: All of those spy shows! So on top of this theme, we have façades and high-tech areas. Think 007 and the evil lair inside the volcanic



island. It takes us back to the "this base being beside the other" thing. Well, we say that the folks in this warehouse weren't aware that the farm across the way houses another facility. We're having fun with it, juxtaposing rural and industrial, run-down and high-tech.

It works well with gameplay, too. In a typical capture-the-flag map, a no man's land or neutral territory separates the two teams. Our art emphasizes that and you say to yourself "This is neutral territory, it's less intimidating." Then, "Ah, I'm moving into the opposing team's property; it's more threatening, and I feel like I'm trespassing."

We want these neutral areas and facades to say low-tech, so we're sticking to a rural look. Well, blue bases tend to be a bit more industrial, but neither teams' façades are nearly as high-tech as what's underneath. So we play with transition spaces and prepare people to think that things are a little off.

Here we have a barn, mostly low-tech, but we start to see some hints of high-tech—this video camera looks a little out of place. Look closely at that cow...it's actually a bit board. Then we start seeing sharper cutoffs. The front of this door has a no-hum vibe, but its back is a bank vault. Each map has a theme—2Fort's is a command center or NORAD-style space."

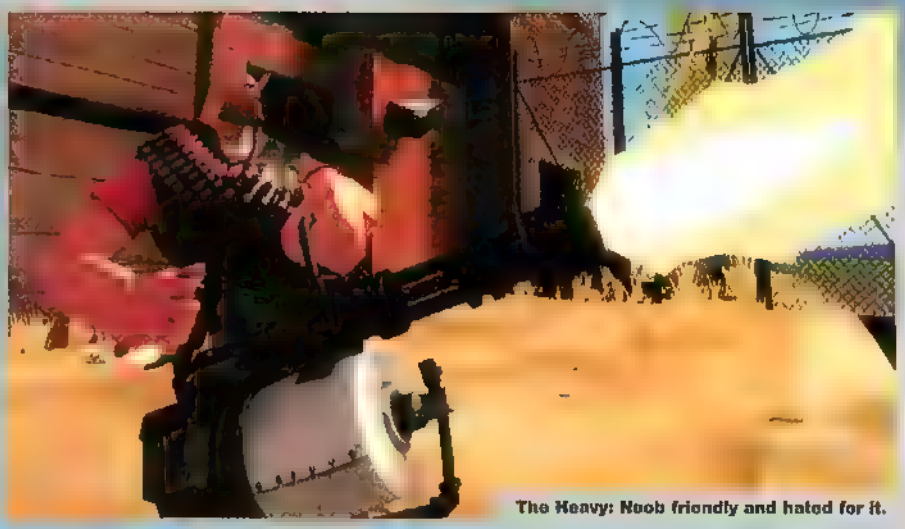
RW: The point he's making here is that a huge amount of *TF2*'s art flows from gameplay. We're emphasizing the level of experience we have with our technology and with what makes *TF* tick.

CGW: Cosmetically, this is apples to *Team Fortress Classic*'s oranges; structurally, it seems the same....

RW: Although *Team Fortress Classic* is a version of *Team Fortress*, it's pretty old at this point. Off the bat, Source has a bunch of technology that wasn't available when we built earlier versions of *Team Fortress*. We're taking advantage of that tech, so even simple things such as physics have a huge impact. For instance, Demo Men and classes who throw physically simulated objects immediately become more interesting when we imagine them in Source. And, well, this isn't the first version of *Team Fortress* that we've built by any stretch. [*Laughs*]

CGW: So tell us about those other versions.

RW: How many, and what happened? There were a few and, in each case, we learned a lot. Our process involves loads of playtesting, internally and with outside testers, so each and every version of *Team Fortress 2* included a set of developed technologies and developed design—some of which we liked, and some we didn't. In each case, we skimmed off the cream and took it with us to the subsequent step. So the *TF2* you see here includes several improvements—wide-ranging alterations, additions, and so on. It's certainly not the same as *TFC*, not by any means. Some classes, for instance, are completely reimagined >



The Heavy: Noob friendly and hated for it.

GLOSSARY

2Fort: Symmetrically constructed for capture-the-flag matches, 2Fort is *Team Fortress Classic*'s most played map. Its massive popularity often reduces map options on public servers.

Concussion Jumping: Using concussion grenades—issued to lightly armed and armored Scouts and Medics for the ostensible purpose of throwing off pursuers—to propel oneself over long distances. Concussion jumping (also called concing) became standard practice for entering and exiting enemy bases in *Team Fortress* and *Team Fortress Classic*.

Team Fortress 2: Brotherhood of Arms: Version of *TF2* Valve showed at the '99 Electronic Entertainment Expo. *Brotherhood of Arms* boasted seamless and smooth-moving parametric animation, relatively realistic art direction, and proto-*Battlefield* tank-busting, parachuting, and turret-firing infantry.

Source SDK: The Source software development kit is a collection of tools used to create maps and mods, among other things. In it, tinkerers found code connected to another incarnation of *Team Fortress 2*—one with Striders, vehicles, construction crews, a commander mode, and more. We're willing to entertain the idea that this is a kind of *Enemy Territory: Half-Life Wars*.

An abbreviated version of these various fits and false starts?
RW: We're not talking about that today

You're kidding, yeah?
RW: I'm guessing that the in-game commentary in *Team Fortress 2* is probably the place where we're going to talk about that stuff. We're talking years of work, and we haven't massaged that into an understandable statement.

In terms of technology, a bunch of the stuff we showed off in *Brotherhood of Arms* ended up appearing in other products. The parametric animation system became the fully fledged blended-animation system of *HL2*. Voice chat lip-synched to characters is in *Counter-Strike*, and so on.

How would commentary work in multiplayer?
RW: We want to do *Day of Defeat* commentary as well, and we're not sure whether it's where you can listen to commentary while everyone else plays or you're in some other mode where you can't see people. We are planning to incorporate commentary into our multiplayer content, though, and, with its long history, *TF2* is a prime candidate.

Was the *Half-Life 2*–flavored stuff stripped from the Source SDK [*see glossary, above*] a red herring or the remnant of another false start?
RW: [*Laughs*] Well, it wasn't a red herring. We don't do reams of work to throw hackers off. It was from one of the iterations, and some of the best bits are absolutely sticking around for *Team Fortress 2*.

What, specifically, will you say about this "skimmed cream?"
RW: Well, we're still playtesting, and we wouldn't want to make promises....

Can you comment on essentials—classic elements such as concussion jumping [*see glossary*]?
CB: They're intact. And, in fact, we're even seeing new ones. "Sharking," or so I'm told, involves moving so swiftly as a Scout that you can actually skip across water without sinking.
RW: *Team Fortress* is all about that, I think. Its core—players making a choice about how they want to play, whether that's, "I want to be about mobility, dodging, and mincing through defenses" or something else. We're going to keep that. Multiplayer games are, in some cases, inherently humorous. Put 20 people together and give them all guns and try telling them to stay serious; it doesn't work that way. No matter how serious a shooter wants to be, it'll have moments that make you laugh a lot. Instead of trying to fight it, *Team Fortress 2* takes hold of it.

> "*TF* IS CERTAINLY CHAOTIC, AND WE'RE NOT NECESSARILY TRYING TO LOSE THAT."
> –ROBIN WALKER, COCREATOR

Were *TFC*'s trick jumps intentional, too?
RW: Absolutely. Remember, *Team Fortress* came out of the *Quake* era: all rocket jumping, all the time. Giving medics a concussion grenade that made them move faster and farther was definitely deliberate.

You're reluctant to say what you're adding. Will you reveal what you're removing?
CB: I guess the nice answer is: The game is 10 years old, and we've learned a lot. Again, we're still testing and tweaking and can't give concrete answers.

Let's say we list ideas under consideration with the caveat that they're ideas under consideration....
RW: Instead of specific ideas, I'll offer a blanket statement. One thing we want is to make the things much more understandable. You've probably tried to introduce new players to *TF*—tried to explain exactly what's what, except explosions are going off, scouts are sprinting by, someone who looks like an ally suddenly turns into a Spy and starts stabbing.
CB: Chaos.
RW: Yes. *Team Fortress* is certainly chaotic, and we're not necessarily trying to lose that. But we are making it accessible. It's almost all in user-interface elements rather than about removing features.
CB: Class interactions are interesting—we're changing things there, too, mostly in the way one class complements another. We're incorporating new ways to work together tactically—it's all about decisions, overcoming different problems in different ways.
RW: *Team Fortress 2* tries to makes sure that no matter what your skill set is, you're incredibly valuable to your team. In the past, *TF* faltered in places where a couple of classes could function in the same roles.

Perhaps some serious shockers for the purists?
RW: They'll be shocked 'cause it shipped! [*Laughs*] The old *TF* community has come out of the woodwork, suddenly sending us a ton of e-mails saying, "We've got the clan back together! We're ready, man! Let's go!" They're the people who have to pay for our product, and we want to make sure it's something that they want to pay money for. So we invite them in, let them play....

Is it difficult? The hardcore have ideas that don't always agree. Where do you draw the line?
CB: Obviously, sample size is one way. One person on our forums says this class is underpowered; someone else insists it's overpowered. In some ways, it's subjective, so it becomes about bringing in as many people as we can—sussing out what the actual problems are.

...e of expression ... the Heavy goes ... ready to fire, ... those types of ...ully fledged," says ...rtist Ted Backman. ... class has his own ...cting to the way a ...ing, and because ...realistic,' we can ...ate expressions. ...turns out, reads ...se that you can ...what an enemy ...lear across the ...environment."

and addressing those as opposed to people's personal reactions

Sure. So while watching a sufficiently wide cross section of people play the game, you start to see so much of something—for instance, nobody playing a Pyro—that you get past the point where it's subjective.
CB: That's it exactly.

Steam's friends function is working well. Will *TF2* take it further and, say, separate players by skill?
RW: I think the short answer is "yes."

Any possibility of cross-platform competition between Xbox 360 and PC players in *TF2*?
CB: Technically it's possible, although interoperability is up to platform holders. If they open it, we can write the code to support it. Once upon a time, we had the PC and the Dreamcast versions of *Half-Life: Deathmatch* working together, so we know we can do it.

So we've seen 2Fort. What about other maps and modes—push/pull, attack and defend?
RW: Again, we're not talking yet, although I can say that *Team Fortress 2* will have classic maps, new maps, and more modes than CTF. One of the things that was fun and worked out well in the original *Team Fortress* was the variety of modes and the way that they changed the importance of various classes. Old engines constrained the ways that the Demo Man could modify the world with detpacks. We can do much more now, so I definitely think we'll be pushing that as well as taking advantage of the Engineer's ability to work on stuff, and so on. And certainly some of the classic maps are undergoing change.

As with all of our multiplayer products—actually, all of our products—*TF2*'s an ongoing process. We're never "done" with it on the day we ship, and we definitely have ideas for other classes with original styles. We define our classes in terms of play style—"I want to play this way. Which class do I choose?"—and through testing we've discovered other styles that people haven't had the opportunity to explore elsewhere.

So much class-based stuff sticks to what we'd consider the core—a guy who's good at combat, a support guy such as the Medic, a technician, and then that's it. They stop right where you start to see the really interesting stuff, like the Spy or the Engineer. It's possible to play as an Engineer without any ability to aim whatsoever. The Spy takes out opponents purely through sneakiness—watching how other people play, and using their own behavior to best them. That's what we find the most fascinating, not more combat classes.

BASE GAME: *Half-Life 2*
DEVELOPER: Fortress Forever Team
GENRE: Multiplayer first-person shooter
WEBSITE: www.fortress-forever.com
RELEASE DATE: September

FORTRESS FOREVER

TF Too

THE MODDERS MAKING *FORTRESS FOREVER* HAD REASON to hang their heads on what, for the rest of us, was a red-letter day. However, when Valve unveiled *Team Fortress 2*—radically retiggered and closer in concept to *Team Fortress Classic* than the company's previous plans signaled—*FF* folk were as excited as everyone else, insists designer Kelly Dickinson. "Come on. Who wasn't excited?" he says. "Still, we discussed the '*TF2* release contingent' ages ago and decided that it wouldn't greatly affect our own goals even if it did occur during *FF*'s development. Obviously, there's cause for concern though." Namely, whether or not the official *Fortress* will nix the Source mod's following before it's even formed. "We're pushing to release *FF* prior to *TF2*," Dickinson says. "Showing something to the community sooner improves our chances of success, and new players should be more apt to try us. We've worked too long and too hard—a little over three years—to quit. No way we're gonna let it go to waste."

For Dickinson, *Team Fortress*' class-to-class imbalances and exploitable bugs are chinks, not serious cracks; the chief trouble is in the same complexity that makes the FPS, well, classic. "With so many different experiences—each depending upon the class a player picks—the game is daunting," he says. "Plus, public server play doesn't display the depth on tap in more organized matches. With *Fortress Forever*, we want to provide better direction for players. We have a hint system similar to *Battlefield 2*'s. We're offering narrated tours with overviews and point-of-interest flythroughs that show objectives for each and every map. We also have an 'intro,' or interactive training session, lead by bot instructors, in which players can test the same advanced techniques that veterans perform." *TFC*-native tricks (read: cone jumping) aren't just possible, they're positively reinforced: *Fortress Forever*'s stat system (a mishmash of notions from *BF2*, *WarCraft III*, and *GunBound*) rewards players for team- and objective-based accomplishments.

Melding the preservationist's "they don't make 'em like they used to" devotion to the past with a willingness to tweak parameters, *FF*, Dickinson holds, is firmly rooted in *TFC* but isn't an outright remake. "We decided to stick with the Soldier-Medic dynamic that's so strong in *TFC* and push the other classes up to that ideal," he says. "We've tuned mobility, making the Pyro a cooler class with an incendiary cannon that's more mortar than RPG and allows for trick jumps. Similarly, we've modified the Heavy's chain gun so that it's more satisfying to use and we've given the Sniper teamwork-oriented options such as radio-tag ammo that allows allies to see marked opponents through walls. In addition, Spies can crouch in midair to mute the thud of impact. They also stay disguised while firing tranquilizers—although [the] rate of fire is slower—and auto-disguise as opponents they stab in the back."

Valve's Robin Walker says, "It's great. They have different goals, so we're not threatened by them, and they don't feel threatened by us. People will play what they want to play. And the *Fortress Forever* lot has some nice-looking stuff." Reason for *FF*'s makers to hold their heads high then, provided they meet projected release dates and continue to iterate according to player input.

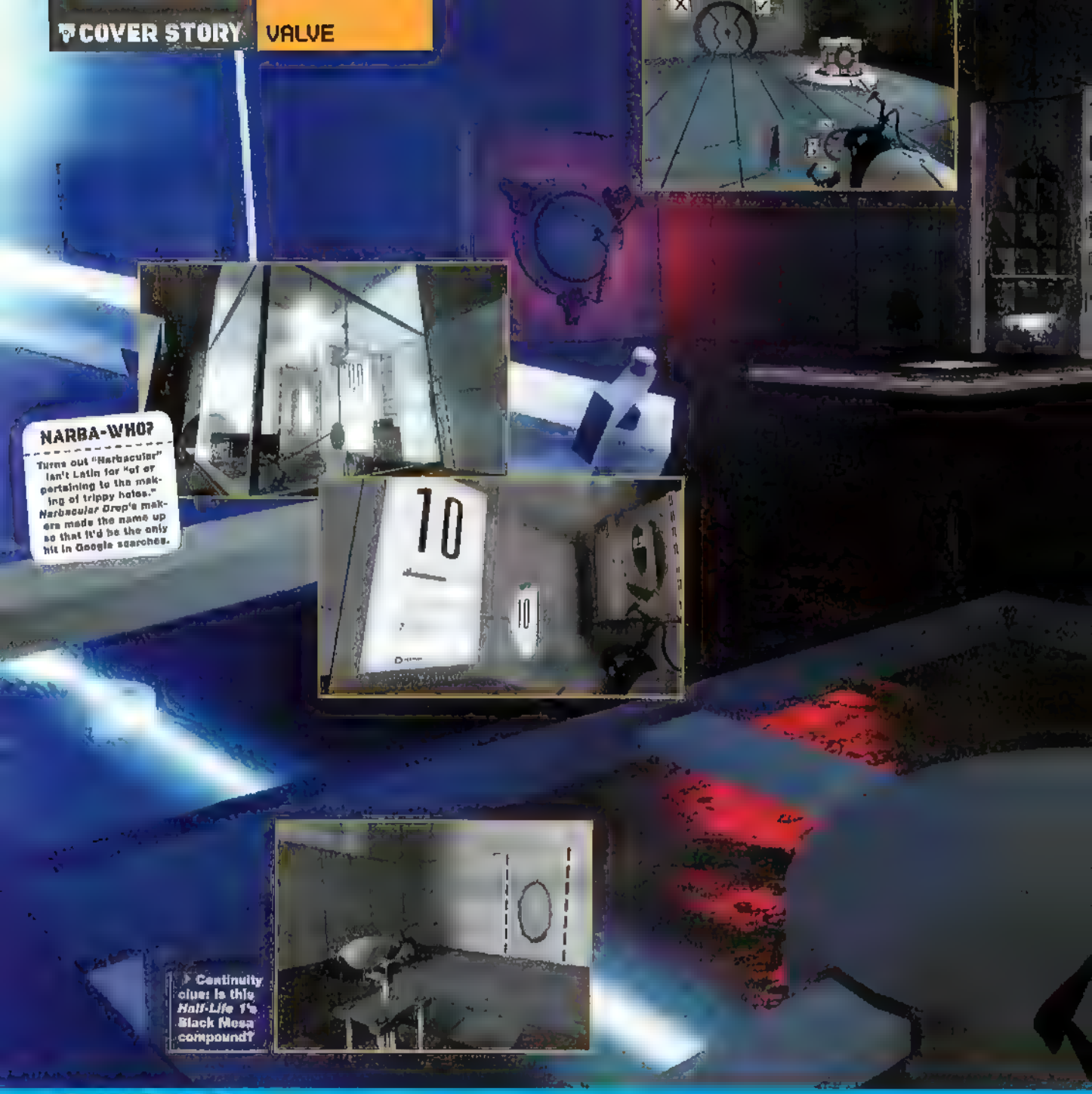
CGW: Are physics posing any impediments? For instance, dealing with rag dolls when Spies feign death?
CB: Absolutely. Definitely.
RW: Yeah. Our philosophy there is to run with it, not to fight it. Instead of saying, "We need to make sure that you can do everything now that you did then," it's "What would we do if we were inventing this game today?" And what we usually find is that we get a bunch of new, much more exciting behaviors.

CGW: For example?
RW: OK, maybe I'll talk about the Medic, who's much, much different in *Team Fortress 2*. We don't feel that anyone's produced a perfect medic in a multiplayer game, and certainly *Team Fortress Classic*'s mechanism is a chore. The way that you heal people is annoying and hard. You can't do it in the middle of combat, the other person has to be aware that you're trying to help them, and so on. So *Team Fortress 2*'s Medic is completely changed in the way he interacts with other characters and the way he fulfills his purpose as the core support class. Now he's supportive on offense and defense. If you're near one, you'll appreciate his presence whether you're hurt or not.

CGW: We hope he can still spread infection.
RW: [*Laughs*] Earlier you asked what about *Team Fortress Classic* we didn't want in *Team Fortress 2*.
CB: There's one.
RW: Excellent example. That feature fundamentally says, "Stay away from your teammates; they might hurt you." That's not exactly a good signal to send.

CGW: Shipping *Team Fortress 2* will send a good signal. How does it feel to finally, finally get within range of an actual release?
RW: It's awesome. I keep seeing things here and there where I want to shake the artists' hands; their work fits the gameplay so well. Watching a Heavy open up, with HDR on his tracers and that massive muzzle flash—the whole thing just looks better than I ever thought *Team Fortress* would look. It's exciting.

> "I WANT TO SHAKE THE ARTISTS' HANDS; THEIR WORK FITS THE GAMEPLAY SO WELL."
> —ROBIN WALKER



NARBA-WHO?

Turns out "Narbacular" isn't Latin for "of or pertaining to the making of trippy holes." *Narbacular Drop*'s makers made the name up so that it'd be the only hit in Google searches.

Continuity clue: Is this *Half-Life 1*'s Black Mesa compound?

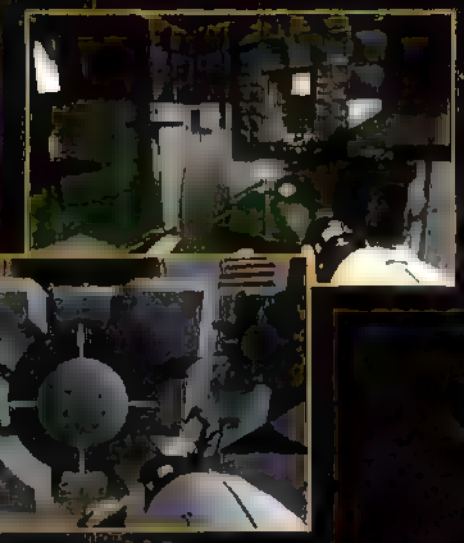
PORTAL

BUGS BUNNY—WASCALLY wabbit, videogame pioneer. Slapping a hole on a rock and stepping inside, he'd instantaneously emerge from some distant burrow. And yet, thanks to modern scientific advancements at Valve Software, what once seemed phony now works. The proof is in *Portal*.

Those little environmental/logic puzzles scattered throughout *Half-Life 2* and *HL2: Episode One*? Pfeh! Nothing compared to what we've played in Valve's first-person puzzler. In *Portal*, Newtonian law is meant to be bent if not broken. The game's portal gun tears holes in space-time, creating paths to and from physically unconnected points; its gameplay challenges players' spatio-logic prowess with perplexing labyrinths. The only fatalities in this firefight-free bonus (bundled with *Team Fortress 2* and *Half-Life 2, Episode Two*) result from bungled jumps.

Portal's simple design draws on stark white backdrops straight from *THX 1138*. Riffing on *Metal Gear Solid*'s similarly spartan VR training missions, each room presents a new puzzle that, in turn, teaches another knotty navigation trick. Open a portal under a crate and place the exit point over a turret emplacement; gravity does the rest, as the crate drops on the gun and destroys it. Plummet into one low-lying portal and use the momentum to catapult yourself out yet another portal and over a yawning chasm. Sound familiar? *Prey* noodled with similar notions, but making and manipulating portals—as opposed to simply stepping through them—is another matter. Perhaps you've heard of the little freeware that could called *Narbacular Drop*? A student project from the DigiPen Institute of Technology, *ND* (download it at nuclearmonkeysoftware.com) plays like a lean version of *Portal*. "It's an environment-traversal game, too," says level designer Kim Swift, part of *Narbacular*'s seven-person crew. Excitable engineer Jeep Barnett finishes her thoughts: "Originally, we wanted these overly complex ideas—weapons and entire cities full of things to chase down." However, that was too intricate, "so

EACH ROOM PRESENTS A NEW PUZZLE THAT, IN TURN, TEACHES ANOTHER KNOTTY NAVIGATION TRICK.



ATTN: MODDERS!

Level designer Kim Swift hasn't forgotten you. *Portal*'s SDK includes code for making your own portals and "probably [a Forge Game Data pack (FGD)—files using Valve's Hammer editor] so modders can make their own custom maps."

▲ The *Portal* team (pictured here) is tinkering with NPCs. So far, "our A.I., for instance, doesn't understand how to navigate portals and/or react to players navigating portals," says Swift. A strangely similar problem plagued *Prey*. Meanwhile, as they try to tackle multiplayer (no word on whether that's cooperative play or competitive time-trials), the modders at stridermud.com have already beaten them to the punch. Check out the videos on their website.

we cut it all out, just stick to the portals, and see what we had."

What they had caught the attention of Valve employees visiting DigiPen's annual student expo. "We showed *ND* to [Valve founder] Gabe Newell. Apparently he must have liked it, because he hired the whole team on the spot," says Swift, summarizing one hell of a senior-project success story. Now, celebrating its one-year anniversary with the company, the team's first pro title nears completion.

Right now, though, *Portal* is in the throes of rigorous playtesting—an important lesson learned from their bug-bitten sen or project. "The entire game is built on player feedback," says Barnett. "The Valve school of thought—test, iterate, test—has helped improve *Portal* in every way."

More satisfying is seeing testers work out new ways to solve challenges—and inspire completely different design. One interesting observation. Women assess the situation before acting, whereas men bop about as if bracing for a fight. Finger testosterone if you must, but c'mon. The game, played ent rely in the first-person perspective, has you staring down a gun barrel while solving IQ-busting brainteasers. The first urge is to fire a few rounds and bunny-hop. We did.

Swift confirms that this unique single-player puzzler also somehow ties into the larger *Half-Life* world. "Think of *Portal* as a sort of side path that will connect with later episodes. It's fun figuring out how we're going to fit ourselves in. Stranger still is that Valve scribe Marc Laidlaw places *Portal*'s events between *Half-Life*'s Black Mesa incident and the beginning of *Half-Life 2*. "*Portal* is one of those parallel-evolution games that's converged on where we're at in some ways. I just loved what they were doing," confides Laidlaw. As per the Valve norm, how it all connects remains a mystery. "*Portal*," Swift says, "offers some answers while raising other questions."

For starters, what's next? That, according to Swift, is up to the masses and what they want—*Portal*'s features integrated into the *Half-Life* franchise proper or a full-blown sequel. We say why not both?

HALF LIFE 2: EPISODE TWO

Into the wild

CGW: **HOW IS THE EPISODIC experiment going?**

Marc Laidlaw, writer/game designer: We're still in unknown territory in terms of storytelling. In *Episode Two*, we're out of the familiar confines of *Half-Life 2*, out of the Citadel and City 17. It opens up possibilities—a new setting, new characters, and new events that we couldn't pull off in the past.

David Speyrer, engineer/project lead: Marc has to keep several stories in his head, since we can't predict where gameplay prototyping and playtesting will take the product. The player is another random element in that equation, and only through experimentation are we able to figure out what works. So Marc stays superflexible in such an unpredictable framework.

CGW: **So you say, "We want a temperate forest," and Marc matches his story to fit?**

ML: Well, it works both ways. We'll take a list of levels and areas that we'd like to explore, let the artists stretch their wings, [and] let the level designers do the same. Then we'll work that into the story. Other times, we'll settle on a story idea that dictates the environment.

DS: [*To Marc Laidlaw*] I remember you really wanted to develop the Vortigaunts in *Half-Life 2*. They're unique in our fiction in that in *Half-Life 1* they were your enemies, whereas in *Half-Life 2* they became your allies.

ML: We want to get into who they are, their motivation and special role. In *Half-Life 2* we couldn't get them into areas where we wanted them, that sort of thing, so we sort of went, "OK, we won't deal with them here, and that changes their story." Now we say why they weren't infesting City 17, why you frequently encounter them out in the countryside. The exigencies of game development tweaked things, but I'm totally happy with the way it ends up.

DS: When we playtested Nova Prospekt—the prison in *Half-Life 2*—one Vortigaunt got loose and went around shooting Antlions. I wanted to fight alongside him, but it was way too late to introduce new companion A.I. to *Half-Life 2* so we bookmarked it for the future. We knew

"SO MUCH FROM *HALF-LIFE 1* IS STILL UNRESOLVED."
–MARC LAIDLAW, WRITER

that adventuring with Vortigaunts would be fun, and that dovetailed nicely with Marc's desire to flesh them out.

CGW: And what role will Vortigaunts play in *Episode Two*?
Josh Weier, engineer: Obviously, we didn't want Vortigaunts to work the same way as Alyx, so they do things differently. They shoot lightning bolts and can charge your suit, bringing your health back up. They're also great against Antlions, and will flip them onto their backs to buy you time.
DS: And for consistency's sake, we can't have Alyx die at any time. As allies, Vorts fix that since they're hive-minded and all the same. Also, it's much easier to make an alien endearing. Because we're programmed to recognize whether a person is behaving appropriately, it's tough to make someone such as Alyx effective and evocative. With an alien, you have a little more leeway, and you can take its personality in more interesting directions.

CGW: Just avoid Jar Jar Binks. Have you considered revisiting other *Half-Life 1* characters from time to time?
ML: So much from *Half-Life 1* is still unresolved, and we're having fun bringing elements of the Black Mesa backstory forward. For instance, Dr. Breen was an unnamed administrator—you never saw him in *Half-Life*—but in *Half-Life 2* he becomes a character. One of the old *Half-Life* scientists will emerge in *Episode Two*.

CGW: Shining the spotlight on a new Barney or Dr. Kleiner?
ML: I won't say too much more about him until we roll out the red carpet, but he's a fun personality to inject into scenes. I kind of know how Dr. Breen is going to talk, I kind of know how the Vortigaunts are going to respond to things, so it's good to work with these characters when putting scenes together.

CGW: Ah, so Dr. Breen *is* still alive?
DS: [*Laughs*] Hmm. What? Let's look at this vehicle

Tracking Gordon, Hunters communicate tactics in hoots and growls.

JW: We wanted a vehicle that looks, feels, and functions unlike what the Resistance used in City 17. A car created to kill zombies. It's cobbled together. The muffler is crimped on, it has fenders from different cars, a cowcatcher on the front...NPCs interact with it in interesting ways. The lithe zombie actually leaps onto it to attack. If you swerve, he swerves while still hanging on—the way he would in an action flick. To clear him off the car, you'll want to smash into a wall.
DS: Allies can catch rides, too.

Are these vehicle segments as straightforward as those in *Half-Life 2*?
JW: Some maps are massively nonlinear. The Jeep's a great way to get around, and so we wanted to make big maps.

DS: [*Points at a monitor*] Gordon's crossing through the countryside, racing Combine forces to a missile silo in the White Forest. The goal is to rendezvous with Resistance scientists working on a superimportant project there. The big environments between City 17 and the missile silo required us to change the way we build maps. We render a few dozen trees and then replicate those in slightly different orientations and positions until it feels like a full forest. Look at this: See how the Strider demolishes this house? [*Reloads and replays scene*] It collapsed differently that time. That's cinematic physics.

How different is it from what Havok or AGEIA is doing?

DS: Gray Horsfield [who worked on destruction sequences in *The Lord of the Rings* and *King Kong* for director Peter Jackson] translated his techniques to game development. The initial destruction event is canned animation, then we hand off some of it to Havok simulation. We use it to do much more spectacular stuff without slowing the computer down.

[*Attempting to take on a Strider*] Bear with us on this Strider Buster demonstration; we're using a pumpkin to represent it at this point. The goal with this weapon is to get Gordon down underneath the Strider. It's a combo weapon; it works as gravity gun ammo—similar to C4—and then conventional weapons detonate it.

"BLACK MESA'S STILL TIMELESS TO ME. I STILL FEEL LIKE THERE'S A PART OF ME THERE."

—MARC LAIDLAW

Episode Two explores Antlion societies and life cycles.

***[A smaller Strider appears onscreen]* And that's the Hunter....**

ML: Every time you encounter a new creature, you want to know how it fits in with the Combine. How does the Combine use them? Where did they originate? We're fleshing out the whole tapestry of Combine creatures and the ways in which they fit together.

DS: Hunters, for example, accompany Striders. They're pack creatures designed to pursue players into all the spaces that Striders can't. And they emote.

Ted Backman, senior artist: Think about the way we read faces: raised eyebrows, squinting eyelids, flaring nostrils. Now imagine that for Hunters. The eyes retract inside of the head. The pupils dilate, much like Dog's does. It seems strange to talk about this sort of alien and acting, but I think it'll read really well and people will intuitively understand the different emotional states.

CGW: After seeing Dog in action, it doesn't seem strange at all.

TB: Dog's performance in *Half-Life 2* and *Episode One* made me want to push dramatic acting among monsters. It's one of our goals going forward.

DS: We also want to breathe more life into Antlions—let you look at their life cycle, social structure, and that sort of thing. We think you'll get a kick out of walking through Antlion tunnels, and, yeah, you'll definitely deal with Antlions in new ways, and see Antlion variants that you've never seen before in *Half-Life 2*.

CGW: Speaking of NPCs, what can you tell us about the big tease from the beginning of *Episode One*—the Combine Advisors escaping the Citadel?

DS: It's one of the interesting things about episodic storytelling. While working on *Half-Life 2*, we'd revise the whole story as necessary. Here, however, we create an episode and ship it. *Episode Two* can't revise *Episode One*. That said, we always had plans for the Advisors—we foreshadowed them at the end of *Half-Life 2*, and we showed them in *HL2: Episode One*. We'll flesh them out in future episodes.

▲ [redacted] to Laidlaw, "You could see the broad personality [redacted] of people like Dr. Kleiner in *Half-Life*. Now we get to spend time with them and get to know them better, but they're still the same guys they were back in Black Mesa."

ML: These teasers aren't accidental. The fact that the Advisor scene is there in *Episode One* is a strong sign that it's significant. In a longer game, we could put something in simply because it's cool. Here, we often end up cutting it. Things have to do double duty. They have to be good for gameplay, they have to add to the story, and they have to look great. There's less and less extraneous stuff in each episode

CGW: As you trim away accidental and/or nonessential experiences, are you afraid you might paint yourself into a corner?

ML: We try to avoid inconsistencies and contradictions, but even if we think that we've painted ourselves into a corner, we'll find some way out That's the fun of it. Every now and then, though, you'll find footprints in the paint! [*Laughs*]

With *Half-Life 2* we were thinking, "We want to make sure this is expansive." In *Half-Life 1*, we didn't think about anything beyond Black Mesa. But I'm often amazed by it, because, as I said, we're still pulling stuff out of Black Mesa, and its backstory figures significantly into the episodes as we move forward.

"ANY CONCLUSIONS WE PROVIDE TO ANY STORY ARC WILL LEAVE UNANSWERED QUESTIONS...THAT JUST SEEMS RIGHT."

—DAVID SPEYRER, ENGINEER/PROJECT LEAD

[redacted] On moving forward: Previously you referred to episodes one through three as "*Half-Life 3*." Is it only a trilogy?

ML: What we're working on now is a three episode trilogy. And what lies beyond that ...

DS: Is unspeakable! [*Laughs*] Any conclusion we provide to any story arc will leave unanswered questions. To me, that just seems right Our players are participants in our fiction and it would spoil a lot of the fun to tie a little bow around every question for them.

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VGXPO America's VideoGame Expo

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-Ben Franklin

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VIEWPOINT

BEYOND REVIEWS

ISSUE 267

READ THIS FIRST! THE CGW REVIEWS SECTION IS NO MORE. HERE'S HOW VIEWPOINT IS DIFFERENT.

NO MORE REVIEWS

Mindful of the lateness of magazine reviews, we don't print our reviews in the magazine anymore. Instead, we publish our reviews online the day the games come out—you can find them online at http://cgw.1UP.com.

MULTIPLE SCORES

Yes, we still have scores! We give every game a score when we first review it online (just look for the 1UP Network score—that's us!). For additional perspective and points of comparison, we also list the scores that other websites and outlets gave each game.

BROADER ANALYSIS

These articles are meant to give you the bigger picture: a summary of our original online review, community and media reaction to the game, and a look at patches and updates since a game's original release. In short: It's everything you need to know.

THIS IS NOT A REVIEWS SECTION

The astute among you have probably noticed a bit of tinkering going on with the Viewpoint section over the past couple of issues—namely, the addition of a "Reality Check" box on each featured game noting review scores given to the product in question by major gaming opinion sites.

For those of you who want scores, that's what the 1UP Network number exists for. 1UP's PC reviews—all scribed by the very same snappy writers whose witticisms you're about to read—form the baseline for what you see in this section each month. We include those other guys' scores as a frame of reference for readers curious about some of the other points of view we occasionally refer to—a shocking inclusion for a section called Viewpoint, we know.

OK, so the headline on this page isn't completely true—but we don't want you to look at Viewpoint as the typical reviews section that you see in every other magazine (hence the name change). Yes, you can find opinions on games now available in stores. Yes, we attempt to provide relatively timely coverage of games you might be interested in playing. Beyond that, we go a cut above the norm in our content thanks to all the elements spelled out in the handy FAQ below. Embrace the change—we definitely have.

EDITORS' CHOICE AWARD

CGW's reviews don't concern themselves with scored evaluations; you can find those at 1UP.com well before the magazine arrives. Our Editors' Choice emblem signifies the best in PC gaming.

FREQUENTLY ASKED QUESTIONS ABOUT VIEWPOINT

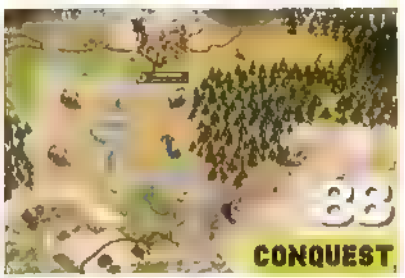
So do you still review games?
YES! The CGW team posts its reviews online as the games hit store shelves. Read them at cgw.1UP.com.

What's 1UP.com?
Computer Gaming World is just one part of the larger 1UP Network (www.1UP.com). Visit us there at cgw.1UP.com.

How do I know if I should buy the game?
Read the Viewpoint article and check the scores in the box to see what we originally scored the game and how others rated it.

If you still can't decide, read our in-depth review online at cgw.1UP.com.

INSIDE



Civilization IV: Warlords
More civs, more scenarios—more ways to get obsessed all over again.

The Ship
They're coming to get you!

Tom vs. Bruce: PoxNora
Wanna trade cards with us? Eh? Eh?

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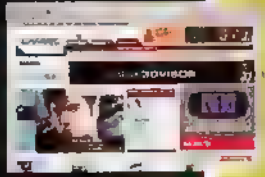


1UP NETWORK

HTTP://CGW.1UP.COM

CIVILIZATION IV:

Too much is never enough

GOOD EXPANSION PACKS CAN'T MAKE up for a terrible game. In the case of *Civilization IV*, that's not such a problem. But even with a great game like that—and don't kid yourself that this wasn't the best game of 2005—an expansion pack needs to get you excited enough to pull out the original again. If you'd uninstalled it, the expansion should make you willing to tear through your stacks of games, looking for the CDs so you can do the reinstall shuffle—and like it. Spend an evening tracking down a game that wound up in some paper sleeves at the back of your desk? A good expansion pack makes it all worthwhile.

WHO DECREED THIS PLEASURE DOME, ANYWAY?

It's not tough to get excited about *Civilization IV* again. The problem: Does the expansion pack really have anything to do with it? Do you really care that you get to play as the Carthaginians? Or that you can build a trebuchet? Or that *Civ IV* developer Firaxis Games had the questionable taste to include Josef Stalin as a Russian leader while showing the obvious sense to exclude Hitler from the German side? Longtime *Civ* fanatics (those who've stuck with the series since 1991 and still have *Civ II* installed somewhere on a laptop or old Windows machine) won't find any surprises here. In that sense, the minor changes in *Warlords* are instant failures. Oooh! A Great General! Is that because you forgot to put him in the original game in the first place? "Hmmm...we have Great Engineers, Great Artists, and Great Prophets...what are those guys in the army called? No, I can't remember, either. Let's just leave that out this time."

Short of adding tin soldiers and Richard Nixon, it's hard to effect any substantial change to the *Civ* formula, which continues working quite well even a decade and a half later. Sort of counterintuitively, the only way to really make players think differently about these types of games is to limit their options in some way—because expanding a player's options has long since reached the point of diminishing returns. Hence the only substantive difference about the *Warlords* expansion pack is the inclusion of fixed scenarios.

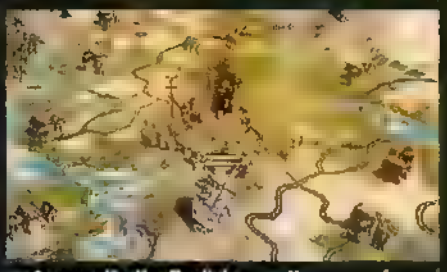
I know—everyone hates fixed scenarios. All 4X strategy games should have the largest maps possible, with the most units, because that's what these games are all about...right? Trust me, though—the scenarios work. In fact, they're the best part of *Warlords*.

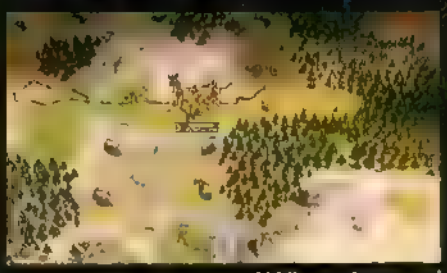
TREBUCHETS-R-US

Here's the weirdest thing about *Warlords*: The scenarios feel like total last-minute add-ons cobbled together to offer some more material for when players get sick of building trebuchets. To load a particular scenario, you have to restart the game in order to queue up the particular mod that the scenario uses (trying this in multiplayer without the appropriate restart causes crazy sync errors). Once you get past this undocumented problem, you realize you have the choice of some excellent multiplayer situations...and some totally broken messes. But the real challenge lies in the limited range of action available in these scenarios, because when a game

THE ONLY SUBSTANTIVE DIFFERENCE ABOUT THE *WARLORDS* EXPANSION PACK IS THE INCLUSION OF FIXED SCENARIOS.

Get out your Thucydides to make sense of the Peloponnesian War scenario.


Apparently, the English were the ones who invented the stock market.


Vassal states are a way of hiding under your mother nation's skirt.

WARLORDS

imposes limits on the player's actions, it must do so very carefully to avoid undue frustration—and *Warlords* generally gets this equation right. Paradoxically, despite the expansiveness and scope of the well-established *Civilization* system, the part of *Warlords* that works best is the one that limits the game the most.

It's also interesting to see how well *Warlords* works as a straight war game, which is what you're essentially playing in the Peloponnesian War scenario (one of the best scenarios, incidentally). The Chinese Unification scenario puts players in a diplomatic straitjacket and forces them to forge alliances in order to accomplish anything, and works very well in multiplayer. Some of the other scenarios, like Omens, don't work well at all...so, just like every other part of this package, the quality varies.

Reimagining and restricting the game's scope also makes an intriguing solo scenario possible, in which the player controls the Vikings in their invasions of the British Isles. The goal: Loot, loot, loot. You can even ransom cities back to their owners, with the proviso that once-ransomed cities that fall under subsequent attacks won't accept further ransom demands. So, of course, your ultimate goal is to ransom every city once—and then build up a massive armada to come back and take them all again, plundering them properly. That's what Vikings do.

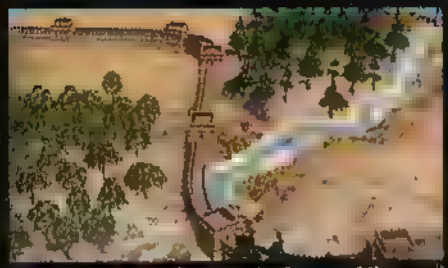
Did I mention the fact that *Warlords* also features buildings specific to each civilization? It's a nice touch, but ultimately not that important. New Wonders include the excellent Great Wall, which looks super even if its usefulness remains questionable. One scenario lets you play as the barbarians, and it feels like the final act in a series from which we've now seen everything. Ultimately, perhaps the reason *Warlords* is so good is simply that enough time has passed since the release of the original game, giving you plenty of leeway to appreciate it all over again. / **Bruce Geryk**

COMPUTER GAMING WORLD **VERDICT**

Worth your money? Yes. Worth your time? That depends on your valuation system.

REALITY CHECK

1UP NETWORK	8/10
GAMESPOT	8.6/10
GAMESPY	3.5/5
IGN	8.4/10


The new Great Wall wonder is one of the best...looking.

The trebuchet and trireme spice up the early game...just a little.

DUNGEON SIEGE II: BROKEN WORLD

Meh

▲ Yep, you still get to blow stuff up!

▲ You still can't save whenever you want...so you need to activate teleporters before you quit in order to make sure your gaming session wasn't for naught.

MOST EXPANSIONS SKIRT A FINE LINE between "making the most of a quality engine" and "wringing the last dime from a tired property." The thing is, which side of the line a given expansion falls on is less a matter of objective analysis and more a matter of how much you liked the base game. It's telling, then, how little commentary (professional or fan-based) exists for developer Gas Powered Games' new *Dungeon Siege II* expansion, *Broken World*. In fact, apart from GameSpot reviewer Greg Mueller, the Internet critics remain positively mum. Bad sign? Well, in the words of Oscar Wilde: "There is only one thing in the world worse than being talked about, and that is not being talked about."

Despite the ho-hum-ness, a few honest-to-goodness, objectively identifiable strengths and weaknesses shine through. The two new classes (with names that scream "marketing department"—see sidebar for details) and one new race (dwarves) aptly complement the gameplay, and the added content provides a few more solid hours of hack-n-slash. On the other hand, *Broken World*'s graphics are as dated as a milk carton and its story thinner than Lindsay Lohan...before her intervention.

SAME AS EVER

Good or bad, though, the new stuff doesn't add up to much. As GameSpot's Mueller points out, "[*Broken World*] doesn't bring anything to *Dungeon Siege II* in terms of the story, and it's too short to stand on its own as a separate campaign." The game throws some uninspired new dungeons at us (the final one is little more than a really long corridor), with most of the repetitive "new" enemies simply rehashed from the base game. While the expansion's boss monsters provide good challenges, requiring some tactics and clever timing to defeat them, you wind up fighting the same ones repeatedly throughout. Other aspects (the clicks-r-us gameplay, the multiplayer mode, and the spells and weapons) remain completely unchanged.

Then again, the lack of change doesn't necessarily equal failure, as long as you maintain an "it ain't broke" attitude about the original *Dungeon Siege II*. The gaming industry is rife with sequels and expansions that radically alter a series, only to upset fans. Instead, for better or for worse, Gas Powered chose to play it very safe here—so if you just want more of that old feeling, *Broken World* should keep you happy. / **Eric Neigher**

COMPUTER GAMING WORLD **VERDICT**

Only diehards will warm to this by-the-numbers expansion.

REALITY CHECK

IUP NETWORK	6/10
GAMESPOT	6.3/10
GAMESPY	—
IGN	6.3/10

A LITTLE BIT OF CLASS

LINE OF ATTACK

YOUR MONTHLY GUIDE TO HARDCORE WAR-GAMING

VIVA LA REVOLUCION!

IF YOU LOATHE SPENDING MONEY ON war games of questionable quality that keep covering all the same old crap, you can't do much better than *1848*, downloadable (free of charge!) from Battlefront.com. As its name implies, *1848* covers the Hungarian Revolution of 1848—tell me if you've ever seen *that* in computer form before.

The Hungarian Ministry of Education sponsored *1848*'s development, and Battlefront.com used this bit of government largesse to promote its latest war game, *For Liberty!*, which covers the American Revolution and comes from Hussar Games, the same developer responsible for *1848*. Furthermore, the two games share a common system...so, chances are, if you're into *1848*, you'll also enjoy *For Liberty!* The latter game costs money (you can try a brief demo before you buy), but frankly, I like this "get one free, then buy one" system of game marketing, in this case, it gives players access to a game about a period of history with which they might be unfamiliar, and then gives them a reason to try it out.

Obviously, this kind of thing isn't going to work for many other war games, because not all of them can receive funding from big government institutions like the Hungarian Ministry of Education. However, Battlefront.com gets props for recognizing the opportunity here and using the game as a marketing tool rather than trying to charge even a modest price for it.

And if you're still hungry for American Revolution material after *For Liberty!*, try *Birth of America* from www.ageod.com, a PC game from the designer of the original *Europa Universalis* board game. **Bruce Geryk**

I originally CGW contributor Bruce Geryk can probably kick your ass at any board game, any day of the week.

WAR-BLOGGER!

Check out columnist Bruce Geryk's war-gaming blog at grognards.1UP.com.

Ever wanted to play out the Hungarian Revolution of 1848? Now you can.

- *For Liberty!* uses the same game system as *1848*, so if you dig one, you'll likely dig both.

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CIVCITY: ROME

Maybe this is why Rome fell

THE CAESAR CONNECTION

Though the Caesar series wasn't developed by Firaxis Studios, two of its creative forces (Simon Bradbury and Eric Ouellette) designed and produced *CivCity: Rome*.

▲ It's called a Civilopedia...but it's more like early CD-ROM-era edutainment.

▲ Shopping districts surrounded by houses provide low-cost evolution for young cities.

WERE YOU TO KNOW NOTHING ABOUT history except what you learned from PC games, I'd forgive you for believing that Rome was the world's only great empire worthy of a game simulation—or, in the case of this release season, *two* of 'em. CDV's *Glory of the Roman Empire* led the charge...and the second of these sims, *CivCity: Rome*, is an intriguing collaboration between *Civilization*'s Firaxis Games and *Stronghold*'s Firefly Studios that, despite its positive qualities, excels only at dull mediocrity.

SIZE MATTERS

At first, *Rome* feels like a strong medium-intensity city game, well suited to casual players or veterans with little appetite for hardcore micromanagement. The math is easy to grasp (one in-game person equals 100 citizens), with simple resource-production chains varied enough to make each a unique challenge. The game's best innovation: a realistic representation of citizen life that allows you to diagnose problems by watching citizens' comings and goings (rather than by combing through info boxes and tables). It all works quite nicely—until your city gets too big.

As cities grow, the game unravels...and *Rome*'s apparent accessibility begins to smell, instead, like a cop-out. The production chains that made the early game so engaging either become harder to troubleshoot or simply break down (it's hard to tell which). The low zoom-out and unchangeable viewing angle prove unworkably claustrophobic. And, without any useful hotkeys, playing at the game's brisk pace becomes physically tiring; would it have killed someone to program "R" for roads and "H" for houses?

The campaign mode tries to minimize this problem by moving you to a new (and usually empty) map with every scenario. Far from helping, this structure forces you to, as GameSpot reviewer Brett Todd puts it, "build the same town over and over again." Worse still, you quickly realize that the best way to achieve mission goals is to forgo strategy in favor of plopping stuff down willy-nilly; it's like finishing a puzzle by pounding in the last few pieces with a mallet. Your cities end up sloppy and disorganized...but that's the next governor's problem, right?

RENDER UNTO CAESAR

Even before they reach this state, however, the cities aren't much to look at. Most critics (except for IGN's very forgiving reviewer) pointed to the game's "ugly" aesthetics, but that's a bit misleading. Yes, the building selection screams "monotonous" and everything's blocky up close—but that's not "ugly," that's "dated." They would've been quite acceptable four years ago. It's curious, then, that the game runs so sluggishly even on machines that exceed its recommended specs; at highest settings, even midsized cities stutter annoyingly.

TIME MACHINE OR A DUSTY SHELF?

Everything about the game, in fact, seems so 2002. I'm unable to escape the feeling that *Rome* was an uninspired and rightly shelved game that got a second chance with the infusion of Firaxis brainpower. Still, not even the *Civilization* team's most substantive changes penetrate more than skin deep, as if the game was just too finished for any fundamental alterations. Ignoring the purely cosmetic changes (like calling the collection of Roman trivia a "Civilopedia"), the attempts to put the *Civ* in *CivCity: Rome* do improve the game a little, but they fall far short of their promise to—as lead designer Simon Bradbury said in an interview—put "the cities of *Civilization* under a magnifying glass...[carrying] on where the furthest zoom level of *Civilization* left off." One could imagine the great game we'd have now had Bradbury kept that promise.

Perhaps no worthwhile city-builder can sprout from *Civilization IV*'s city concept, but it would've been nice to know that someone gave it an honest try. Better that kind of failure than the post hoc patchwork of *CivCity: Rome*. / **Greg Kramer**

EVERYTHING ABOUT THE GAME SEEMS SO 2002

COMPUTER GAMING WORLD VERDICT

At this shotgun wedding of the *Civilization* and *Caesar* franchises, no one catches the bouquet.

REALITY CHECK

IUP NETWORK	5/10
GAMESPOT	6.6/10
GAMESPY	3.5/5
IGN	8.2/10

CASUAL CENTRAL

Looking for a good casual game to play? We recommend heading over to RealArcade at www.realarcade.com.

FALLING PIECES

OUR FAVORITE WAYS TO WASTE SPARE TIME

EETS ALIVE!

THOSE OF US OLD ENOUGH TO REMEMBER *CGW* Hall of Famer *Lemmings* back when it debuted have waited a good long time for something to come along and fill the void that only a lack of adorable, suicidal, leaping critters can create. Enter *Eets* to be said void.

In this nifty little puzzle platformer, you guide a cutesy little white blob (the eponymous Eets) across a cartoonish landscape. Your goal: Get the little guy to the jigsaw-puzzle piece serving as the finish line for the level. You do it by messing with Eets' emotional/food issues: feeding him certain types of marshmallows changes his emotions, thus changing how far (if at all) he leaps at a platform's edge. Or you could shoot him with chocolate chips from the choco clouds...or never let him get gobbled up Jonah-like and shot across the level by a cranky whale. Yeah, it's all more than a little surreal—picture *Willy Wonka* on even more LSD—but it's an addictively good time. You can pick it up for just $20 at www.eetsgame.com.

POPCAP'S MIDAS TOUCH

While PopCap's *Whac-A-Mole* wannabe *Hammer Heads Deluxe* didn't grab me the way most of the cubicle-dwelling publisher's mechanical-pencil-and-honey games do, *Talismania* makes up for it, consuming my free time faster than Eets downs a happy marshmallow. What makes *Talismania* so addicting is the way it mixes different game types and rewards.

The core of the game consists of spinning coins around to create paths between different talismans. Longer paths equal bigger rewards...simple, right? But with three tiers of talismans offering three different levels of reward, a mix of bonus coins and blockers to snare for bonuses, and a *Duck Hunt*–like minigame between missions, the action never stops...and neither do you. Don't mess with the free trial—give in to the inevitable purchase at www.popcap.com. **Robert Coffey**

CGW alum Robert Coffey blames his inability to get anything done on "column research." He's really just playing word games online.

Tight timing (or the use of the [illegible] keys in *Talismania* [and, judging by the dancing here, King Midas' life]) can mean the difference between victory and Eets' death.

FIGHT OR FLIGHT

Fight in the air or on the ground. Fight on the beaches or at sea. Fight during the day or through the dark of night. Fight with valor. Fight with might. Defend your armies, whatever the cost may be. Patrol the skies. Hunt down your enemies. Attack your foes. Never retreat. Never surrender. Fight with speed. Fly with ease. Fight with these weapons and victory will be yours. So go to your nearest retailer then head into battle.

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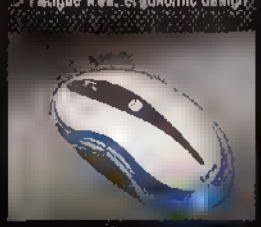

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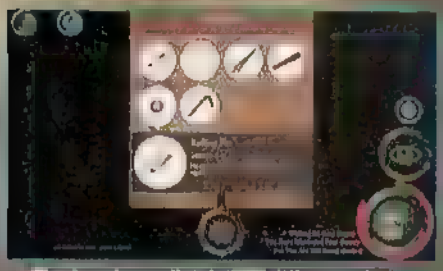
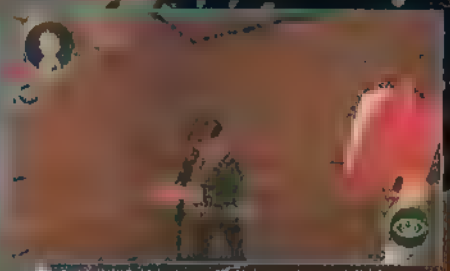
THE SHIP



The loss immediately to all the murder weapons (knitting needles and pen knives, for



Bail fees! *The Ship* fines and/or jails players for offing the wrong passenger.

I SHOULD S*** AND SHOWER. I NEED a nap. I'm hungry, thirsty, hunted...all of this in *The Ship*, I should say (what with all the out-of-proportion MMO players out there who'd sooner crap in a sock than step away from the PC).

The man in the top hat and coattails is scheming; I've seen him pace the same corridor one, two, three times. Same goes for the old crone with the graying bob, meandering in and out of third-class cabins, bespectacled one moment and naked-eyed the next. She waits to catch me washing, snoring—or, worse, *crapping*. She waits to off me on the can with the pool cue, poison, stiletto, skillet, cleaver, screwdriver, tire iron, or any other object—improvised or for the purpose—she so happens to have hidden underneath that dead-giveaway gown. But we all want blood on our hands. Maybe "she knows I know" is more "she thinks I'm out to murder her."

Sixteen passengers per online server, we walk the ship, visiting boiler room and rec room, infirmary and brig, looking for our very own Professor Plum and the lead pipe to whack him with. Meanwhile, Colonel Mustard (or whoever, among the 14 other players) follows us. Each voyager is both target *and* triggerman, whereas *Sims*-ish needs—bladders, stomachs, and stimulation-starved brains—create vulnerability. If I stop for a bite, I risk a knife in the back. Ignore those needs and fatigue sets in, making me an easier mark. The rule set is simple; the psychology is something else.

MIND GAMES

A poker face is paramount: Only an assassin is sure of himself, positive he's approaching his hit and not the other way around. Everyone else stays tentative, on edge...or in the shrewd executioner's case, trying on sheep's clothing. What you have is first-person dinner theater—based more on artful deception than hand-eye aerobics—that even the nonmousing, WASD-averse will take to.

In fact, *The Ship* favors Parker Brothers "them's the breaks" attitude toward setback. Rousing *and* routine, electrifying *and* exhausting—like *Monopoly*, it soars when some other lout grabs the "Go to Jail" card. Alternately, TV, chitchat, or the takeout menu on the table looks twice as interesting when that lout is you (here, it's one player starting within spitting distance of an ordnance dump...while the next needs to scour the deck just for a knitting needle). In bad luck, hold out; in good luck, hold in.

Fortune aside, satisfying executions float this *Ship*...assuring a half-wit you're a noob looking for a tutor and not his life, only to off him as he types; poisoning a schlep and butchering him as he heads to sick bay. Similarly, in my mind, *The Ship* is mostly immune to the bugs and imbalances other critics carp on. Psyche yourself out. Play it. In short, on-again, off-again stretches—not to sink time. **/Shawn Elliott**

THE RULE SET'S SIMPLE; THE PSYCHOLOGY IS SOMETHING ELSE

UNSMOOTH SAILING

Servers hard and buggy. *The Ship*

COMPUTER GAMING WORLD **VERDICT**

Too spirited, sinister, and inexpensive (it's $19.99) not to try.

REALITY CHECK

1UP NETWORK	6.5/10
GAMESPOT	8.3/10
GAMESPY	—
IGN	—

CRISIS ON INFINITE SERVERS

CGW'S MONTHLY TRAVELOGUE OF THE ENDLESS MMO LANDSCAPE

PACIFIC BY NIGHT

THIS IS A TALE OF TWO *ULTIMA ONLINE* characters—Gamelon (my thief) and Shaal (my buddy's insane ex-murdering beggar dude)—who, one dark night at around 1 a.m. after a long combat training session on *UO*'s Pacific shard, declared, "Let's go look for trouble!" In the waning days of the game's unforgiving kill-or-be-killed atmosphere, we rarely needed to look any further for our entertainment.

So we took off across the docks of Skara Brae, and into the thick of Britannia's urban blight—with two unarmed (unless you count Shaal's pickax), mostly naked, and severely unfinished characters. We often ran into some fairly odd and random encounters at these hours, as we did on this night: A small, player-owned house stood in a clearing, and near it sat a shirtless, deer-antler-adorned tamer atop a pet nightmare.

According to the house's sign, it would fall at any minute (as was once the fate of any ill-maintained house in *UO*). A quick inspection of the tamer's pockets revealed a fresh house deed—obviously intended for the soon-to-be-empty spot—along with some spellcasting materials and quite a bit of gold. Since this amateur land tycoon remained motionless and wholly unresponsive to our antics, we did what any good hell-raising troublemakers would do at a time like this: We PK'd him.

YOU ARE DEAD.

For the uninitiated, that's short for "Player Killed." Shaal tore through the hapless house-camper while I carefully trapped the nightmare inside another nearby house, thoughtfully left unlocked by its undoubtedly soon-to-be-dead owner. After looting the tamer's corpse (and letting our criminal timers expire), we wandered into an even more absurd situation farther south: Two trash-talking mages dueled outside their guild house, clearly focused on honing their mad PvP skills. Shaal wasted no time in telling off these two veteran characters, insisting that he could take them both by himself—driving his point home with a sudden pickax attack.

How exactly the ensuing melee unfolded I do not clearly remember. I helped out by stealing random items from the mages' backpacks while Shaal ran around trying not to get killed. He managed to elude them long enough to pick up a poisoned butcher knife (aka the weakest weapon in the game) from a nearby player-owned weapons vendor, which I'm pretty sure he used to kill one of the mages. One way or another, I know that this particular comedy of errors *did* end with at least one of the mages dead, right before Shaal and I disappeared into the woods yet again...where we wandered into a moongate (fancy *UO* talk for a teleportation gateway) that sprang into being right next to us.

PHAT LEWTZ!!!111!!!11ONE1!!!

On the other side of the moongate, we found the decayed house from earlier in the night. Or, more accurately, we found a shiny *new* house where the old house sat not an hour prior. We immediately hid near the moongate, rightly expecting the new tenants to drop in, hauling furniture and other possessions. Moments later, a large, 400-pound chest fell to the ground right next to the moongate. You see, players oftentimes transport heavy cargo by "dragging"—that is, alternating the goods between their inventory and empty patches of floor nearby (necessary to offset the stamina loss that comes with carrying heavy loads)—and for a split second, the treasure chest rested unclaimed, on the ground...right next to me.

The proud new homeowners never had a clue. After discovering their valuables missing, they took off in search of the thieves...oblivious to the fact that we stood *right* next to them, hidden the entire time. We got the loot back to our own house without further incident, and found that we'd hit the jackpot with all the gold and rare items we'd scored.

Man...those were the days. —Ryan Scott

CGW editor and MMORPG addict Ryan Scott misses the good old days of vicious PKs and endless urban sprawl.

> WE DID WHAT ANY GOOD HELL-RAISING TROUBLEMAKERS WOULD DO AT A TIME LIKE THIS: WE PK'D HIM.

▲ We told these two unsavory-looking characters that we were vicious PKs, which they somehow believed. Later, we wound up killing them.

▲

▲

TOM vs. BRUCE

POXNORA

It's a pox, all right

LAST MONTH...
Bruce ushered in a new Golden Age, crushing Tom under his heel in *Civilization IV: Warlords*.

PUBLISHER: **Octopi** DEVELOPER: **Octopi** AVAILABILITY: **Download (www.poxnora.com)** GENRE: **Collectible Card Game** ESRB RATING: **Not Rated** REQUIRED: **Java-based web browser** RECOMMENDED: **N/A** MULTIPLAYER: **2 players**

TOM: SEVERAL PEOPLE RECOMMENDED *PoxNora*, a new online CCG, to Bruce and I. They said we'd like it, because it's turn-based, and you can build decks and use lots of different strategies, yadda yadda yadda. It sounded right up our alley. Plus, the game we *were* going to do, *Sword of the Stars*, was really awful...and we wanted an excuse—any excuse—to not play it. *PoxNora* gave us just such an excuse.

BRUCE: I thought I was going to be playing a collectible card game (or "CCG," as hip guys like Tom call them), but I had to play a web browser first. Instead of actual cards, I got a list of my cards, which I had to page through to "activate" the ones I wanted in my deck.

TOM: Nothing like a clumsy card-sorting interface to make a bad first impression in a CCG. However, maybe this doesn't apply to *PoxNora*, since they're not called "cards." They're called "runes," which is apparently another word for "cramped 2D graphics that don't convey very much information at all." But we wouldn't find that out until we got into the actual game; in the meantime, the deck-building process—although I'm not sure you can actually call a collection of "runes" a "deck"—was indeed a big hassle. So I just randomly picked a faction...let's go with, umm, dwarves...and threw in my rarest cards. There. I had a deck.

BRUCE: Every CCG deck has to have a theme, or it doesn't work. Tom's theme, for instance, was dwarves. My theme was beating Tom by rooting all of his monsters and then making the ground under them turn to water and drown them. Actually, I only have one Drown card, but it seemed like a pretty good way of taking out a big Chickian monster. Plus, it's realistic, because drowning is what happens when you go in the water.

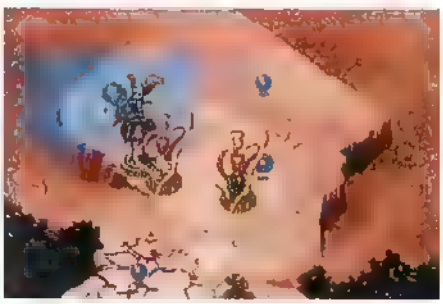
Another part of my plan was to have all kinds of ranged units, like centaurs and faerie maidens, to attack across the newly installed water obstacles. Unfortunately, a lot of the ranged units seemed crappy, so I filled out the deck with a bunch of rare, expensive dudes.

TOM: As everyone knows, dwarves excel at making money. Duh—we're talking Fantasy 101 stuff. So I made sure to include a few money-making runes: a pair of Deep Miners and a Nora Mine. I figured it a sound strategy, since most strategy games come down to some form of economic management, whether you're trafficking in mana, gold, pox, isk, or tiberium. Besides, using my real-world knowledge of dwarves and the economic principles of strategy gaming beats the hell out of trying to figure out what's going on with the runes in *PoxNora* (i.e., clicking through my web browser to page through a few dozen runes, each split into two separate displays, to deduce which rune gets which special attacks and has which special abilities and counters which other runes and other such information that the rune browser takes forever to just freakin' tell me already).

Before we've even begun, I've got a bad feeling about *PoxNora*.

BRUCE: I start by bringing out my Draksar Lord, which I put in the deck because he's big and scary and costs a lot of mana. He also takes up four squares on the map, which gives him the disadvantage of covering up units that end up directly behind him. If he were smaller, he'd have the disadvantage of being covered up by big units directly in front of him. That's a real dilemma. I suspect the solution lies in overhauling the interface, instead of remodeling the monsters.

TOM: One of the first things we hate about *PoxNora* is the time limit it imposes on our turns.



▲ **Bruce's magic roots make *PoxNora* play even slower.**

TWO GAMERS ENTER, ONE GAMER WINS

Players

Tom Chick
In addition to being one of the videogame industry's most prolific freelance journalists, Tom also runs the popular website QuarterToThree.com.

Bruce Geryk
Longtime *CGW* contributor Bruce Geryk has written about videogames for over 20 years; he loves war games like most people love oxygen.

The Interrogator's special attack is (no joke) Sapping Blow.

When Bruce's shrine gets destroyed, it releases a blue angel, which is probably explained in the backstory somewhere.

We can't turn it off, even though we're playing a nonranked game for kicks instead of one of the supercompetitive tournament ranked games that goes on your permanent record. So I have two minutes to figure out whether I should use my Dwarven Axe Guard's Sunder ability on Bruce's Krikkinwing, how worried I should be about his Firk Sensorate, and whether I should instead try to use the Interrogator's Sapping Blow— Wait, wait, what does Sunder do again, and how much damage has this guy taken? Oh, he didn't take any damage. .but one of my guys took damage. .oops, time's up and the turn's over!

This is also a problem because Bruce and I are pretty interactive when we're playing games. Here's an example:

BRUCE: I'm summoning a Draksar Lord. He's big and scary and costs a lot of mana.

TOM: It's not "mana." It's called "nora." That's why the game is called *PoxNora*.

BRUCE: I can't be bothered to remember a new word every time some developer decides to make up his own term for an elf or a magic sword or a wizard or some damn thing that already has a name.

TOM: Nevertheless, it's called "nora."

BRUCE: OK, I'll call it "manora."

TOM: That's anti-Semitic.

BRUCE: No, it isn't. And you're not even Jewish. You don't even know what a menorah is.

TOM: You don't know whether I'm Jewish. We've never even talked about religion.

BRUCE: You're not Jewish. And we've never talked about religion because we can't get past politics, because talking politics with you is like talking to a brick wall that only listens to NPR.

TOM: At least I don't sound like some Bill O'Reilly wannabe!

BRUCE: Hey, your time just ran out. I guess it's my turn again.

TOM: So that's how *PoxNora* goes with a time limit. You have to remember not to interact with the other player so that you can spend your valuable time playing the game. It's like an unholy combination of turn-based gaming and real-time gaming.

YOU HAVE TO REMEMBER NOT TO INTERACT WITH THE OTHER PLAYER SO THAT YOU CAN SPEND YOUR VALUABLE TIME PLAYING THE GAME.

BRUCE: Bringing out my nonflying, nonranged Draksar Lord first kind of subverts the whole deck theme...but since my fantasy knowledge comes third-hand, my understanding is that big, scary-looking monsters usually win monster fights. Right now I want to point out to *PoxNora* developer Octopi that, much as *Laser Squad Nemesis*' Julian Gollop shouldn't have named a unit a "missile tank" if it didn't have any missiles, you shouldn't put wings on a monster if it can't fly.

TOM: Not a lot of interesting stuff happens in the early turns of *PoxNora*. Basically, we both summon champions and then spend action points slowly walking our champions toward each other.

BRUCE: One of the second things we hate about *PoxNora* is that it's confused about whether it's a CCG or a PC game with a bad interface. When you're playing a CCG, you have to keep track of different types of effects, damage, and all the things that happen in fantasy worlds that you need to simulate. With all the cards assembled in front of you, it's usually easy to see that—for example—some guy is down to three hit points, because you have to have it marked with something. You can scan card effects by just looking at the cards in front of you. I'm told information wants to be free, which is why the CCG was invented in America.

But in *PoxNora*, everything is cutesy-cutesied into these tiny runes, which you have to mouseover to see...and you can't rotate or zoom in on the monsters on the map. So part of the game is just hunting for information that should be way easier to get. How many hit points does Tom's dwarf guy have left? Not only do I not know, but I have to pick him out from behind two much larger monsters, thanks to the fixed perspective and cramped unit placement. Guys, when you design a map,

Piso mojado: Bruce gets the middle ground all wet.

Tom's Deep Miners mind the Nora Font while his Earth Golem slowly walks to war.

don't make the pieces as big as the spaces. That's like Elementary Rule 1 in board-game design, and since this plays out like a board game, you might want to go pick that book up at the library.

TOM: While our units trudge toward each other, I summon a BattleRager. That's right, a BattleRager. He must be called this because of how he totally rages during battle. Having clicked on a few different displays and scribbled some rough calculations on a piece of scratch paper I'm using to keep track of all my units, I've deduced that the BattleRager is my best unit. His special abilities include Berserk and Whirlwind, which is what you'd expect from someone who totally rages during battle.

Also, I believe in health care for veterans, that's why I put Desperate Heal and Priest of Valdac into my deck. While I'm reading the flavor text to figure out who the heck Valdac is, the timer runs out and my turn ends. Remember, kids: When you have a time limit, study the cards *before* you play the game.

BRUCE: One of the fatal flaws in *PoxNora* is that your deck's success heavily depends on which map you use. For example, a map with a lot of water on it heavily favors amphibious and flying units, like the one I summon before ending my turn.

TOM: "Champions." They're all champions. That's the word you're supposed to use.

BRUCE: This beetle thing called a Krikkinwing is a champion?

TOM: *PoxNora* is about special heroes called champions. They're not all human. Some of them are Krikkinwings. That's how it is.

BRUCE: I'm not going to take a *PoxNora* history class just to be able to refer to all the pieces properly.

TOM: PC games can have backstories, you know. Not everything has to be a board game. *PoxNora* is no board game.

BRUCE: You can say that again. Anyway, as I was saying, if you build a deck with a lot of amphibious units and you're on a waterless map, you're like a fish out of water.

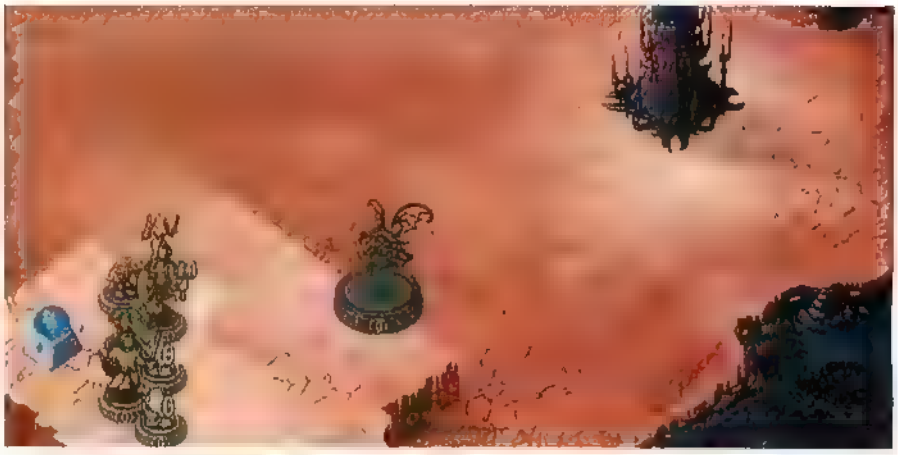
TOM: Fish aren't amphibious.

BRUCE: Maybe they are in *PoxNora*-land. By the way, your time ran out again. It's my turn.

I guess I didn't think this whole thing through so well. My centaur archers aren't doing much damage to Tom, who seems to have become invulnerable through some dwarven sorcery or something.

TOM: As everyone knows, dwarves and barbarians get along. They probably hang out and talk about stuff like the best kind of grip for a battle-ax and whether you should put points into Constitution or Strength when you level up. So, naturally, I've got a few barbarians in my deck. My favorite: the Renegade, who seems inspired by the Lorenzo Lamas series and maybe even the Styx song. He has a woman randomly lodged behind his right knee, as if she got stuck there while he was striding through a village. For a barbarian, he's sporting an odd haircut, halfway between a Prince Valiant and a Fabio. My theory is that it's the haircut that makes him a Renegade.

BRUCE: Uh-oh. I have a Draksar Lord, but Tom has a big toad with huge teeth. I have no idea what it is, so I have to go click on it and try to figure out what it does. Wait—it has *how* many hit points? I need to click on it again.



▲ Tom's forces quickly regather to overwhelm Bruce and end this interminable war.

BRUCE JUST USED WHAT THOSE OF US WHOSE GAMING HABITS AREN'T LIMITED TO HEXAGONAL MAPS OF WORLD WAR II BATTLES CALL A "COMBO."

TOM: It's an Earth Golem, and I'm pretty sure it's an awesome unit. It's tough and powerful, but it takes forever to get anywhere. It spends several turns slowly lumbering toward Bruce's units. If it ever gets there, I'm pretty sure it will be totally awesome.

BRUCE: Plunk! Or is that "plonk"? Anyway, I drown Tom's Earth Golem using my Drown card...sorry, my Drown "rune." I'll get it back through rune regeneration eventually, because as far as I can tell, this game never ends.

TOM: Bruce just used what those of us whose gaming habits aren't limited to hexagonal maps of World War II battles call a "combo." It's not a term familiar to people like Bruce who are over 40.

BRUCE: Uh, I'm not over 40. Tom is 40.

TOM: Not really. I only just turned 40.

BRUCE: Which makes you 40. Oh, and happy birthday.

TOM: This isn't about my age.

BRUCE: You're the one who brought up age.

TOM: No, I didn't.

BRUCE: You said, "people like Bruce who are over 40." It's right up there.

TOM: Oh, right. But still.

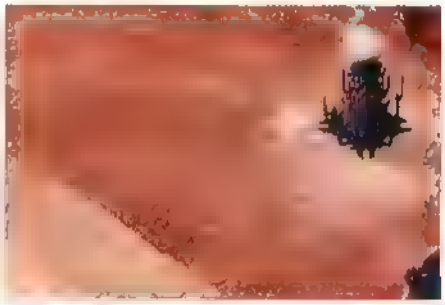
BRUCE: Hey, your time is up again. Now it's my turn.

TOM: The word "interminable" comes to mind. Not literally, of course, because then we'd never have written this article. But our match does have a sort of World War I vibe. Our units meet in the middle and die. Then we recruit new units, who meet in the middle and die. So we recruit new units who meet in the middle and die. And so on. I might gain a few squares, or even a nora node...but then Bruce gains a few squares or recaptures his nora node, and we're right back to where we started.

But I have a plan to end this war before Christmas, and it involves a rune called Divine Dispersal, which disbands all units on the field and refunds half the cost to their owners. If I can do this right after I gain control of a nora node near Bruce, then I can use my financial advantage to immediately summon a wave of powerful attackers like Renegades and BattleRagers. They will advance on Bruce's shrine, overwhelm whatever defenders he can afford to bring out, and then destroy the shrine, while my Earth Golem looms in the background, slowly walking forward.

BRUCE: Finally, the game ends. I can't help but wonder how bad *Sword of the Stars* could really be.

TOM: Having won, now I can go to the forge and improve my runes. Instead, Bruce and I make a list of the people who recommended *PoxNora*, so we can regard their recommendations with the appropriate amount of suspicion. We title our list "Recommendation Probation" and keep copies in our wallets and on our refrigerators. /



▲ Behold! The dramatic spectacle of Tom's Divine Dispersal clears the map of all units!

▲ These numbers are the spoils of victory.

REALITY CHECK

YOUR HANDY GUIDE TO WHAT WE SAY—AND WHAT THEY SAY—ABOUT THE LATEST IN PC GAMING

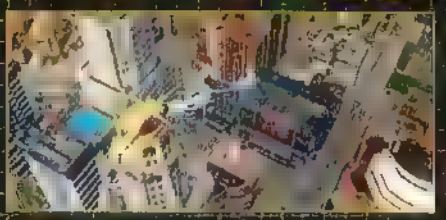
BONE: THE GREAT COW RACE

We say: "By the time you start having some real fun, it's over. It's fine for gamers who don't mind waiting months between episodes, but if you want to get the real charm of the story and art, it's best to just read the comic book."

—Sarah Jaisser Green, 1UP.com (4/10)

They say: "*Bone: The Great Cow Race* is what it is. It's a very well-designed, well-drawn point-and-click adventure that harkens back to the days of old."

—IGN (8.6/10)



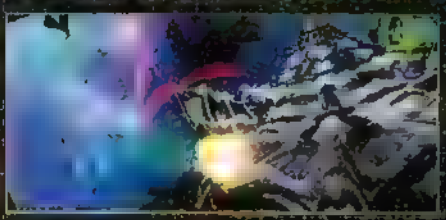
CITY LIFE

We say: "*City Life* is the freshest take on the city-sim genre in memory, managing to be both as challengingly complex as its more gearheaded forebears and more accessible to casual or more philosophical players. Nice trick."

—Greg Kramer, 1UP.com (8/10)

They say: "If the player is willing to dig through the messy presentation, there's some fun to be had here.... With a little more effort and polish, *City Life* could have been...well...a riot."

—GameSpy (3/5)



DARKSTAR ONE

We say: "*DarkStar One* proves that the term 'tried-and-true' doesn't just mean 'been done.' While it does nothing innovative, *DarkStar One* does a lot of things expertly within a genre that's, sadly, fallen by the wayside in recent years."

—Eric Neigher, 1UP.com (7/10)

They say: "Although the flaws can lead to some frustration, they never get in the way of that 'just one more mission' mojo that can keep you playing the game into the wee hours."

—GameSpot (8.1/10)

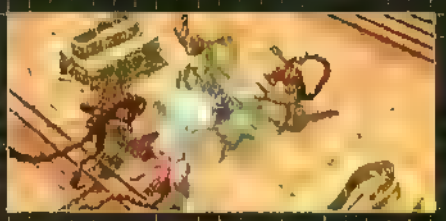
ROME: TOTAL WAR—ALEXANDER

We say: "Not too bad for the $14.95 price tag, but still disappointing compared to the [previous expansion]. With the abundance of free mods out on the Net, [*Alexander*] just isn't great enough to be a 'must-buy.'"

—Di Luo, 1UP.com (7/10)

They say: "I'm always glad for an excuse to revisit [developer] Creative Assembly's *Total War* series and the *Alexander* expansion is definitely a welcome addition."

—IGN (8/10)



TITAN QUEST

We say: "While it may not break, or even dent, any new ground, *Titan Quest* features a beautifully realized game world based on a tried-and-true core mechanic, with tons of replayability. What's not to like?"

—Eric Neigher, 1UP.com (7/10)

They say: "The only thing that keeps *Titan Quest* from being the consummate *Diablo* clone is [that] it's missing the robust multiplayer implementation that Blizzard realized with Battle.net."

—GameSpy (3.5/5)

WORLD WAR II COMBAT: IWO JIMA

We say: "*Iwo Jima* looks and plays like a tech demonstration from a couple of gifted grade schoolers, with deplorable graphics, clunky controls, and completely unimaginative level design."

—Di Luo, 1UP.com (3/10)

They say: "If you're looking for a cheap shooter, go to the store and grab any game off the shelf and you're practically guaranteed to have a better game than this one."

—GameSpot (2/10)

SCORECARD

Available now

Game	Release	1UP Network	GameSpy	GameSpot	IGN
Bone: The Great Cow Race	April 2006	4/10	—	—	8.6/10
City Life	June 2006	8/10	7.8/10	3/5	8/10
DarkStar One	Aug 2006	7/10	8.1/10	—	—
Glory of the Roman Empire	July 2006	6/10	5.6/10	3/5	7.6/10
Night Watch	June 2006	4/10	5.4/10	3/5	6/10
Rise & Fall: Civilizations at War	June 2006	5/10	6.8/10	2.5/5	6/10
Rome: Total War—Alexander	June 2006	7/10	8.5/10	3/5	8/10
Titan Quest	June 2006	7/10	7.8/10	3.5/5	8.1/10
Wings of Power II: WWII Fighters	July 2006	9.5/10	—	—	—
World War II Combat: Iwo Jima	July 2006	3/10	2/10	—	3/10

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1UP NETWORK

ALL ABOUT AUDIO

Forget 3D graphics for two seconds—sound matters, too.

SOUNDS GOOD

SIXTY-FIVE MILLION YEARS AGO, WHEN dinosaurs and internal-speaker-only PCs still walked the planet, game audio—where it existed at all—bleated in monophonic "blips," "tweets," and "boops." If you were so bold as to crack open your computer case (a time-honored geek art in computer gaming's Paleolithic era), that PC speaker resembled a teensy silo, hole in the top, beneath which a sliver sliver oscillated at variable frequencies, producing sounds only an extremely forgiving gamer—or droid—could love.

Thankfully, by the late 1980s, dedicated soundcards arrived to tickle tympanic membranes with kitschy MIDI music and, with the advent of PCI, juggle multichannel digital effects that made stuff like car engines sound, well, like actual car engines (as opposed to FX-pimped flushing toilets). But let's cut to the chase: When was the last time you took a serious drool-inducing stroll through the audio section at your local gadget boutique or got hot and bothered over some new acoustics-modeling standard?

These days, you're practically goaded into springing for new CPUs and 3D videocards biannually—but chances are, you've been running that old PCI soundcard (or integrated audio that "came free with the computer") for years. We're all up on the latest 3D video stuff, like SLI versus CrossFire technology, but do you know the difference between EAX 4.0 and 5.0? Dolby 5.1 and 7.1? AC'97 and HD?

Yeah, so maybe your eyes are bigger than your ears, but as anyone who's gone to the trouble of rigging *Doom 3* in surround sound will tell you, if you're still running that "out-of-the-box" two-speaker setup, you ain't heard nothing yet. Read on, and we'll tell you how to breathe new life into your games without dropping a gold brick, help you gauge whether to upgrade your audio gear, and maybe even throw in a few home-decorating hints while we're at it.

SONIC PHONICS

You've been chewing the marketing hype about the "digital age" for decades, so it never gets old pointing out that what your ears actually hear when sound pours out of your hep new "Dolby Digital" speaker set (or headphones) isn't digital at all. Your eardrums are actually analog-only vibrating receivers that pick up continuous sound waves in the air.

BOOST YOUR ACOUSTICS: TIP #1

And yet, from the computer's perspective, sound is truly digital, a series of electrical signals organized into binary 1s and 0s beyond the ear's native capacity to decode—and that's where your soundcard comes in. Soundcards have analog-to-digital (ADC) and digital-to-analog (DAC) converters responsible for translating those rigid 1s and 0s into throaty growls and screams and thumping hip-hop your ears can appreciate (or if you're recording something like your voice through a microphone, from analog back into 1s and 0s). Audio quality is thus largely subordinate to the processing "oomph" of the ADC/DAC system. So when you see buzz about "hearing the difference" in some new high-end digital audio device, bear in mind that you're not "hearing the digital" so much as hearing the distinction in digital-processing quality.

That's all well and good, you're probably thinking, but what about the rest of the magical, mystical malarkey adorning retail audio boxes—arcane acronyms like SNR, THD, and ASIO? Check this quick rundown on a few of the most common (and commonly misunderstood) audio industry terms. Get to know these concepts, and you're on your way to savvy audio shopping.

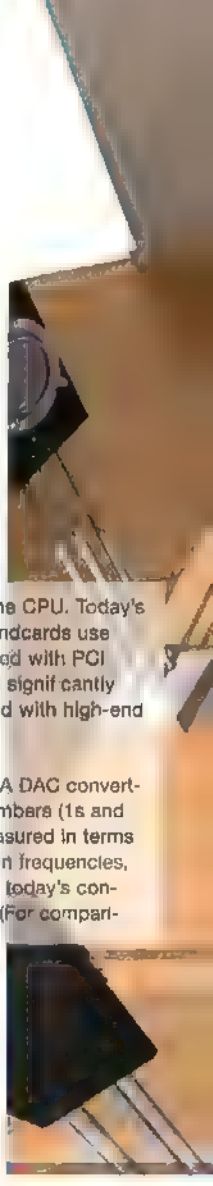
THE BASICS

Analog-to-Digital (ADC): Converts continuous signals (i.e., analog) to discrete binary numbers (i.e., digital 1s and 0s). Measured in terms of precision sampling at certain frequencies, 24-bit at 96KHz is standard in today's consumer-grade audio hardware. (44.1KHz is CD quality.) Higher numbers are better.

Bus: Audio variants are either ISA (Industry Standard Architecture, RIP) or the current decade-plus standard, PCI (Peripheral Component Interconnect), which essentially govern the speed at which a soundcard or solution is able to chat with the CPU. Today's integrated and dedicated soundcards use the PCI bus (not to be confused with PCI Express or PCIe, a newer and significantly faster interface primarily paired with high-end 3D cards).

Digital-to-Analog (DAC): A DAC converter changes discrete digital numbers (1s and 0s) to continuous signals. Measured in terms of precision sampling at certain frequencies, 24-bit at 96KHz is standard in today's consumer-grade audio hardware. (For compari-

DOES SOUND MAKE A BIG DIFFERENCE IN GAMES? YOU BET!



EXTREME TECH!

Looking for more sound advice? Head over to ExtremeTech.com, where tech experts like Loyd Case and Jason Cross dig into topics like PC audio on a daily basis.

> Tech Medics

This month:

ExtremeTech's Jason Cross gives you the DirectAnswers on DirectX 10 and cracks an egg of Core 2 knowledge.

son, 44.1KHz is CD quality.) Higher numbers are better.

Digital Signal Processor (DSP): The microprocessor on a soundcard designed specifically for processing the digital signal in real time. Many integrated audio solutions off-load this task to the CPU through software

AUDIO FORMATS AND CODECS

AC'97: Intel's audio codec (enCOder/DECoder) standard, introduced in 1997, and consisting of a two-channel ADC and DAC, a mixer, and an I/O controller. A hardware DSP (digital signal processor) is absent and instead off-loaded to the CPU, which meets Intel's goal of delivering decent audio at reduced costs. Some soundcards list themselves as AC'97-compliant (Creative's older Sound Blaster Live! series, for example) but include a dedicated DSP for performance benefits, while most motherboards with integrated audio implement the AC'97 standard without hardware DSP. In 2004, AC'97 was superseded by Intel HD Audio (IHD).

ASIO: Stands for "Audio Stream Input/Output" and represents a protocol for low-latency digital audio established by German music technology company Steinberg. If Microsoft DirectSound facilitates communication between the soundcard and applications, think of ASIO as the equivalent for musicians and sound engineers who may want to access multiple audio inputs and outputs independently. ASIO 2.0 simply enhances the Steinberg ASIO standard. (Note: This has no impact on game audio.)

DirectSound 3D (DS3D): Often functionally confused with Creative's EAX specification, DirectSound 3D is rather an extension>

DID JA KNOW HAVING A DEDICATED SOUNDCARD ACTUALLY IMPROVES GAME PERFORMANCE?

of Microsoft's DirectX series of application programming interfaces (APIs) that works with (rather than in lieu of) EAX. Where EAX simulates real-world environmental effects, DS3D is responsible for rendering positional audio (in the case of only two speakers, it uses special algorithms to "trick" both ears into perceiving more discretely directional audio)

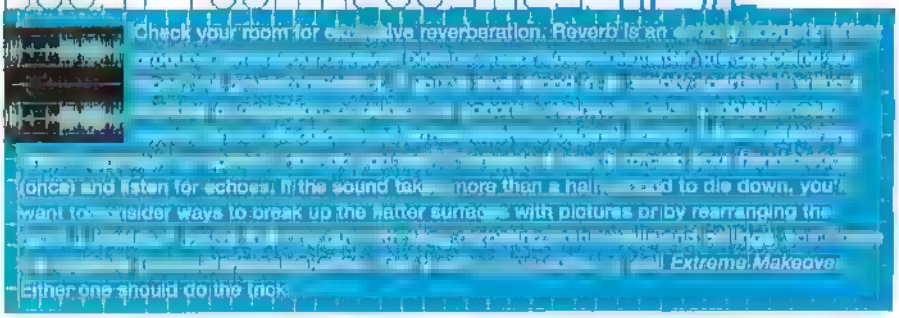
Dolby Digital: Don't think that we forgot about this little company and its audio formats. In fact, it gets its own sidebar on pg. 105. Awww, isn't it special?

Environmental Audio Extensions (EAX): Introduced in 1998, EAX is Creative Labs' solution for simulating real-world audio environments using two or more speakers. EAX 1.0 allowed eight simultaneous "voices" (sounds) and a series of environmental presets that simulated acoustics like "bathroom," "hall," and "cave." EAX 2.0 bumped voices to 32 and threw in sound occlusion (i.e., the effect of sound passing through a solid object); EAX 3.0 tweaked reverb and environment transitions and bumped simultaneous voices to 64. EAX 4.0 introduced the ability to model different environments simultaneously. EAX has continued to improve over the years (the current revision is called Advanced HD 5.0), adding features like 128 simultaneous voice support (with up to four effects applied to each voice) and improved environment occlusion. Nearly all games support EAX, and the standard has remained public (allowing competitors to support it) since 1.0.

Intel High Definition Audio (IHD): Not to be confused with IHD, which pertains to HD-DVD, Intel released this follow-up specification to AC'97 in 2004 to support more audio channels at significantly higher quality (32-bit at 192KHz output) and enhanced features like improved voice capture and automatic device sensing when plugged into an audio jack. (If plugged into the wrong jack, the computer can actually reroute audio-jack functionality to correspond to the device.) Microsoft Windows Vista will include a Universal Audio Architecture (UAA) driver to automatically support audio devices built to the IHD spec. Note that host processing is still prevalent for cost/design reasons, resulting in a sizable CPU performance hit in audio-intensive games.

Open Audio Library (OpenAL): A multiplatform audio API with stylistic similarities to the 3D-graphics OpenGL API. OpenAL is an open-source API designed to render multichannel 3D positional audio, with special ease-of-implementation benefits for OpenGL game engines. Games as recent as *Quake 4* and *Prey* both support the OpenAL standard.

BOOST YOUR ACOUSTICS: TIP #2



Check your room for e... ive reverberation. Reverb is an ... (once) and listen for echoes. If the sound tak... more than a hal... ...d to die down, you'll want to ...reider ways to break up the hatter surfac... with pictures or by rearranging the ... Either one should do the trick.

FOR THE AUDIOPHILES...

Dynamic Range: And you thought this was just something to do with lighting in *Half-Life 2* and *Oblivion*? The two are intimately related, and where video engineers express dynamic range in terms of contrast ratio, audio engineers use it to represent the range of input and output that an audio device can process without distortion—that is, the "lowest" and "highest" levels, usually expressed in decibels.

Frequency Response: Basically a measure of which frequencies (how "high" or "low") the soundcard can reproduce. You'll typically see this represented as a spread, usually the low number in hertz and the high number in kilohertz. Broader ranges are better, but note that the range of human hearing is generally regarded as between 20Hz (extremely low bass tones) up to 20KHz or 20,000Hz (the highest treble tones).

Signal-to-Noise Ratio (SNR): Signal strength relative to background noise. SNR measures the clarity of the audio signal in decibels (e.g., 109dB). Higher numbers are better (notably, anything over 100dB).

S/PDIF: Stands for "Sony/Philips Digital Interface Format" and constitutes a serial interface for transferring digital audio from CD and DVD to amplifiers and TVs. This jack is on some high-end dedicated soundcards.

Total Harmonic Distortion (THD): The ratio of the fundamental frequency to its harmonic. Harmonics are undesirable effects introduced by power amplifiers or other components through which the audio signal passes. Lower numbers are better (e.g., 0.004 percent)

INTEGRATED VS. DEDICATED

If you've been building PCs all your life, you'd probably sooner be subjected to thumbscrews than skimp on a dedicated PCI audio card—or worse, use an integrated solution. If, on the other hand, you're a relative newcomer with a standard retail rig, chances are you're using an integrated sound solution to power your PC games (whether or not you intended to).

Q: What's at stake?
A: Only everything from audio quality, feature support, and bottom-line framerate. Plug-in audio cards pack dedicated processing chips and boatloads of features, whereas integrated solutions—especially anything more than a year or two old—can put a notable load on your CPU.

Q: What's the thrilling history of integrated audio?
A: With the stratospheric increase in CPU power over the last decade, Intel came up with the idea of off-loading audio processing to those "extra" CPU cycles. The result (in 1997) was a specification for integrating cheap-to-manufacture audio components on>

WEAPONS OF CHOICE: HEADPHONES

PRODUCT **Razer Barracuda HP-1** URL **razerzone.com** PRICE **$130**

Sometimes you can't put a price on "awesome." These powered over-ear headphones feel damn sturdy and sound great. Firm bass, crisp mids, and an inline amp kick your eardrums. In a good way. Want more than just superior sound? A detachable boom mic opens communication lines during heated firefights.

Powered by leetness!
You can have the leetest hardware imaginable in your gaming rig, but it won't matter if you run it with a cheap power supply. That's why the **Neo HE power supply** from Antec is the power supply of choice for gamers everywhere. They come with three individual +12 volt rails, are SLI ready, and can handle just about any hardware you could throw at it Neo HE power supplies also feature modular cabling so you only need to connect the power cables you actually use. The Neo HE, combined with your high-end hardware, makes for a stable and highly efficient noob-owning machine. Find out more about Antec Neo HE power supplies at **www.antec.com**.
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WEAPONS OF CHOICE: SPEAKERS

PRODUCT **Creative Labs GigaWorks ProGamer G550W 5.1 System**
URL **creative.com** PRICE **$400**

Bowel-shaking earthquakes of audio aren't reserved for the superdope 7.1-channel surround systems. And really, what's the point if you keep falling over all the damn speaker wires in your room? This 5.1 system does a tremendous job of shooting solid sound, and the wireless 2.4GHz rear receiver frees you from trip wires around your PC.

motherboards—perfectly acceptable for day-to-day productivity software, but lacking in quality features for serious audio recording and 3D gaming. Today, most PCs (desktops and notebooks) ship with some kind of integrated audio.

Q: Wait—so that audio port on my motherboard is "teh suck"?

A: Your motherboard is a rat maze of wires crammed tighter than uncooked ramen noodles and pulsing with current. Interference can thus be a serious issue if you have a motherboard with an SNR below 90dB. Sure, you're not as likely to hear those tiny pops in a noisy frag-fest, but in more subtle gaming situations, or if you're simply messing about with audio (ripping music, for example), those crackles will make you mental.

Q: C'mon, you expect me to believe that integrated audio hasn't improved at all since 1997?

A: Oh, it absolutely has gotten better. Integrated audio—especially Intel's follow-up to AC'97, Intel HD audio (see above), along with the rollout of ever-faster CPUs, has moved integrated audio squarely into the mainstream, with some manufacturers going so far as to include dedicated DSPs, 3D positional sound and surround support. After vetting an integrated-solution SNR, the key questions you need to ask are: Is the integrated audio hardware- or software-based? And does it support the existing positional modeling or surround standards you're after?

Q: As a PC gamer, what does all of this mean to me?

A: It means you've got to take a stand and decide exactly what *kind* of PC gamer you are. First, you need to choose whether you want to run high-quality or 3D positional audio in your games at all, because if you don't care, dedicated audio processing loses at least half its allure. But say you want it all (and, frankly, who doesn't?)—depending on which audio settings you're using (e.g., high-quality versus low-quality), the performance boost to your framerate with dedicated audio hardware in games like *Half-Life 2* or *Battlefield 2* can be upward of five to 10 percent. No kidding. Dual-core or no, your CPU takes a beating when it's forced to handle audio off-load. If your integrated audio solution's dumping on the CPU, you'll want to think seriously about picking up a dedicated soundcard.

Q: I'm h4rdc0r3! Does Creative Labs' X-Fi card make any difference?

A: If you're a total audio snob, you bet your ass it does. This is the digital equivalent of a tube amp. It not only makes music sound richer, its positional audio technology knocks around 7.1 without breaking a sweat. Gamers can get 64MB RAM on higher-end cards, as it supposedly improves performance on audio-dependent games such as *Battlefield 2*. X-Fi cards cost a *little* extra money, but if you've got a discerning ear, you probably already have high-end speakers, headphones, and home theater gear. So suck it up. But an up-and-comer thinks that it can topple Creative: Razer, previously known mainly as a mouse and peripheral maker. Can its Barracuda Integrated Audio System compare to X-Fi? Well, it sounds good on paper, and the board looks nice (we have one in the office) but for the second month in a row, the box sits on our desk, taunting us. We *still* don't have drivers! Maybe one day, we'll be able to test it out.

The Bottom Line: If you plan to use your rig for basic stuff—office suites, audio playback, and basic gaming (or games played on low to medium settings)—most recent integrated-audio solutions will do you fine. If you intend to use your PC for high-end audio editing and audio-intensive gaming, a dedicated soundcard still pays dividends. (You can grab a powerful Audigy 2 Value for less than $50 if price is an issue.)

EXTERNAL SOUNDCARDS

The first-generation notebook boom really took off in the 1990s, but it's only been in the last few years that mobile manufacturers have started to seriously address the sound-starved notebook as a competitive platform. Desktop 3D audio, including A3D and EAX, is commonplace, but integrated audio on notebooks is often an afterthought, hobbling otherwise gameworthy mobile machines.

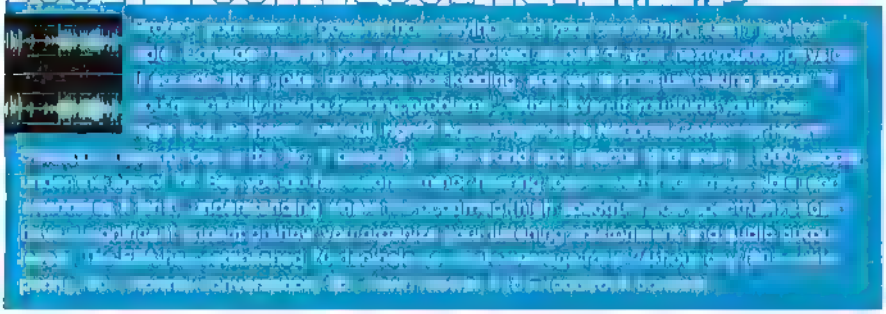
The solution? Consider a PCMCIA soundcard. Creative Labs manufactures the Sound Blaster Audigy 2 ZS, which is essentially what it sounds like—a PCMCIA version of its desktop Audigy chipset.

UPSIDES: Features CPU-offloaded 24-bit/96kHz audio and full support for 3D positional sound and Dolby 7.1 channel output.

DOWNSIDES: You pay extra (current price: $130) for decent sound, losing a PCMCIA slot (and potentially interfering with) the use of one of your PCMCIA slots.

Currently, soundcards require a PCMCIA slot, but Turtle Beach makes a USB soundcard called the Turtle Beach AudioAdvantage Micro for just $50 that might appeal to notebook owners with pretty old (and considerably poorer) integrated audio chips. Plug it into a free USB slot, and bingo—instant digital surround sound, equalizer, programmable DSP, software preamplifier, and a higher-quality headphone jack.

BOOST YOUR ACOUSTICS: TIP #3



HEADPHONES VS. SPEAKERS

First of all, when we say headphones, we're talking the nice over-the-ear sort, so don't go thinking that cheap pair that came with your childhood Sony Walkman is even on the menu. The answer to the headphones/speakers debate is actually pretty straightforward. Do you have roommates, family members, and so on who don't exactly thrill to the sound of you thwacking that ridiculously voluptuous succubus with a lead pipe? Are you cash-strapped and looking for high-quality positional audio without dropping upward of a grand on a really nice surround set? Or do you just hate the idea of playing "hide the wires" with rear and sideline speakers?

Whatever the case, it's worth bearing in mind that even a midgrade pair of headphones (around 50 bones) will generally trump most open-air speaker setups if you're into quality over quantity. There's a reason, after all, that professional studio engineers produce their mixes using studio-quality headsets. Goodbye expensive speaker sets, messy wires, annoyed family members...hello all-night, loud-as-you-want-'em gaming sessions. Feeling chatty? Remember to look at headsets that have a decent boom mic. For good sound without breaking the bank, we suggest Logitech's Premium Notebook Headset ($60 at logitech.com).

On the other hand, if you hate clapping plastic on your head during a frag-a-thon and you don't have touchy neighbors or relatives to quibble with, it's hard to argue with the raw, untangled power of a decent surround setup. A well-placed Dolby 7.1 speaker configuration (that's seven surround speakers plus a subwoofer) is virtually untouchable if you're into soiling yourself when *Doom 3*'s "monsters-in-a-closet" elect to say boo.

Speaker Tip: When setting up, pay attention to speaker distance. Generally, as distance doubles, the intensity of a sound source drops by six decibels. How does that relate to your perception of loudness? Every 10 dB drop will be perceived as a 50 percent drop in loudness.

Headphones Tip: Cast your gaze around the local coffee shop or bookstore and note the number of people wearing earbuds (iPod headphones, for example), competing with espresso machines, conversations, the music on the overhead speakers, outside traffic, and so on. Recent studies suggest earbuds are dramatically less efficient at blocking external sounds, meaning people are cranking the volume higher than they probably should to drown out ambient noise. Long story short, if you're wearing earbuds in a noisy environment, consider switching to an over-the-ear flavor, ear-isolating earbuds, or one of those battery-powered noise-canceling cans.

The Bottom Line: If you want high-quality audio that won't shake the rooftops and surround sound without speakers and wires—get headphones. If you want to feel the sound of Satan and his minions reaching down your gullet at the maximum speed of evil—speakers and 5.1 are minimum. /

DOLBY FOR DUMMIES

Dolby, named after Dolby Laboratories founder Ray Dolby, is a marketing term for a series of audio compression techniques generally referred to as "Dolby Digital" and is available in two essential gaming flavors.

Dolby Digital: Standard for up to 5.1 discrete audio channels (left front, center, right front, left surround, right surround, plus a subwoofer...that's the ".1"). A Dolby 5.1 game run through five appropriately positioned speakers will realistically model the effect of moving objects with 360-degree realism, which can be absolutely alert-crucial in first-person games that render the sound of, say, an assailant stepping on gravel or broken glass behind you. Audiophiles with deep pockets might favor hand-selecting each speaker, even mixing and matching vendors to taste, but the rest of us can find some pretty handy 5.1 speaker combo deals from no-slouch companies like Logitech or Creative Labs.

Dolby Digital EX: Takes the 5.1 standard and adds a single "back surround" channel (6.1) or dual "back surround" speakers (7.1). The "EX" is an extension to the Dolby Digital (5.1) codec for even more detailed surround effects. Note that it's technically only 6.1 discrete audio channels—the two "back surround" speakers in 7.1 are actually matrix (the same single channel flows to each one). Few games support the EX format, and with limited EX-encoded DVDs and the need for additional speakers, it's safe to bet against EX and stick with straight Dolby Digital for now.

HARD NEWS

The bleeding edge of tech

FRAPS!
Want to see how your PC stacks up to our test rigs? Download Fraps from www.fraps.com.

DUAL-CORE DEATHMATCH: CORE 2 DUO VS. ATHLON 64 X2

We put two affordable dual-core processors to the test

IF YOU'VE BEEN PAYING ATTENTION TO recent events in processor land, you've probably heard about Core 2—Intel's lower-power and lower-frequency but higher-speed line of dual-core desktop CPUs. You've probably also heard that Core 2 is fast. But just how fast is it?

Since most people don't have $2,500 to drop on a new PC every time a new CPU comes out, we concocted a test to represent "your next dual-core computer"—something you could put together for $1,500 or so. We put two modern, reasonably priced ($300 to $350) dual-core CPUs against each another—AMD's Athlon 64 X2 5000+ and Intel's Core 2 Duo E6600—in six gaming tests.

THE TESTS

Most game benchmarks use "Quake TimeDemo"–style prerecorded gameplay, which is great for testing graphics cards, but not so ideal when you're trying to paint an accurate picture of what actually happens when you sit down to play a game. A.I., physics, and other CPU-intensive parts of the game can essentially "turn off" during such prerecorded benchmarking demos.

So in order to more accurately gauge what happens in a real game, we used a popular program called Fraps (fraps.com) to measure live gameplay performance. We patched each of our test games with its most recent patch, ran each at a resolution of 1280x1024, and turned the details up to high. We played each game for five minutes and used Fraps to get a frames-per-second measurement for every second of play. To compensate for the sorts of A.I. and physics variables that crop up in unscripted playthroughs, we then repeated each test two more times to acquire an average.

We also took a look at how consistently each CPU was able to maintain the minimum framerate required for what we decided was smooth and enjoyable gameplay—a number that varies from one genre to the next. While 45fps is a good low threshold for many games, RTS games can often be perfectly enjoyed down to 30fps, while first-person shooters are best at 60fps or above. To that point, we also measured what percentage of time played was spent above each game's (admittedly arbitrary) "framerate-enjoyment threshold."

▲ ***World of WarCraft*** **has some yet-unresolved issues (as of v1.11) with dual-core systems that kept the frame rate from exceeding 64fps.**

▲ **Even with all the graphics set to high and the detail and distance sliders maxed, the Core 2 Duo still kept** ***Oblivion*** **running at over 30fps. Most of the time.**

THE RESULTS

GAME	Core 2 Duo E6600 Average fps	Athlon 64 X2 5000+ Average fps	Ideal fps Threshold	Core 2 Duo Time Beneath Threshold	Athlon 64 X2 Time Beneath Threshold
Half-Life 2: Episode One	113	86	60	0%	8%
The Elder Scrolls IV: Oblivion	42	40	30	3%	10%
Battlefield 2	90	76	60	0%	6%
Rise of Nations: Rise of Legends	45	37	30	11%	30%
Titan Quest	72	65	45	0%	1%
World of WarCraft	63	62	50	1%	4%
Average	**71**	**61**	**--**	**3%**	**10%**

THE WINNER

As you can see, the Core 2 Duo swept 'em all—and in fact, three of the games we tested never even dropped below our "ideal frames-per-second" threshold. If you'd asked us to run a similar test a year ago, we would have told you to go with an AMD processor. The Core 2 Duo clearly puts Intel back on top of the game./

THE TEST SYSTEM

COMPONENT	INTEL PROCESSOR TEST SYSTEM	AMD PROCESSOR TEST SYSTEM
Processor	2.4 GHz Core 2 Duo E6600	2.6 GHz Athlon 64 X2 5000+ (Socket AM2)
Motherboard (chipset)	ASUS P5B Deluxe (Intel P965 chipset)	ASUS M2N32-SLI Deluxe (nForce 590 SLI chipset)
Memory	2 x 1GB Corsair XMS2 6400 (CAS 4-4-4-12)	2 x 1GB Corsair XMS2 6400 (CAS 4-4-4-12)
Graphics card	XFX GeForce 7900 GT	XFX GeForce 7900 GT
Hard drive	Seagate Barracuda 7200.8 160GB SATA Drive	Seagate Barracuda 7200.8 160GB SATA Drive

EXTREMETECH

TECH MEDICS

ExtremeTech's Jason Cross performs PC triage

Q: I'VE BEEN HEARING A LOT OF TALK about DirectX 10 and needing a new video card for it, but what exactly does DirectX 10 give us over DirectX 9? What differences might I notice between the same game running on a DX10 card and a DX9 card? Are there new effects that games can only pull off with DX10? What's all the big fuss?!

Ryan Jacob

A: This is actually a tough one to answer. See, game developers don't have DirectX 10 hardware in their hands yet (that we know of), so they're not showing off real DX10 screenshots just yet. DX10 does add quite a bit to the picture, though. First, it's only available in Windows Vista, so it takes advantage of Vista's new driver model along with changes to the structure of the API (application program interface) itself to reduce the overhead when changing "states" in the graphics pipeline. That's a long-winded way of saying you can have more "stuff" in a scene: more rocks and grass, more random objects on an office desk, more accessories on the soldiers' belts, more critters in a real-time strategy game—whatever.

DX10 also has new, more flexible standards for shaders. A geometry shader works on entire geometry primitives (lines or triangles) instead of single vertices. Developers can stream data from almost any part of the pipeline (vertex, geometry, or pixel shaders) and read it back in to other parts.

If that sounded like gibberish, the bottom line is that DirectX 10 is actually a pretty big evolution over DX9, but there's no one feature you could point to in a screenshot that screams "DX10"—it's not like it adds normal mapping or something. It's basically a bigger, more flexible toolbox with better consistency and less overhead for developers. Most of the guys we've spoken to about it are pretty excited.

Q: I've been trying to discover why I'm supposed to care about dual-core processors. After all, nearly nothing supports them. Can you run two virtual machines on the same PC and toggle between them? That would be nice if you have to keep business stuff up and running but want to switch to *Call of Duty* multiplayer for relief. Will Windows Vista support them with Hyper-Threading and what all? And a year from now, will most new apps and games have built-in support of dual-processor PCs? If this is the case, getting the dual-core CPUs out in the world is the egg that hatches the chicken down the road a bit. If not, then it appears we should be spending our bucks on faster single-core CPUs rather than dual-core parts.

Mark & Brenda Smith

A: Actually, there are already a few games that benefit from dual-core processors, though they're definitely rare. Virtualization (switching between two virtual machines) is possible, but you wouldn't want an entire other virtual PC taking up your valuable RAM and adding overhead while you're gaming. But dual-core CPUs have value outside just running games optimized for them. Windows XP already runs separate applications in separate threads, so the apps running in the background while you play a game will run on that second CPU core, keeping your game from slowing down as much. Vista, in theory, should be even better at this. There are some other applications, such as video transcoders and decoders (DivX, Nero, and so on) that take advantage of dual-core CPUs, too.

Our advice: Every new CPU buyer should probably go dual-core. Future games will heavily support the processors, and in today's heavy multitasking environments, a dual-core CPU really helps keep things running smoothly. Besides, Intel's new Core 2 Duo chips are the fastest gaming CPUs we've ever tested, regardless of what games we've thrown at them (see Hard News, pg. 106).

Q: I currently own a 128MB GeForce FX 5900 XT and I'm looking to upgrade, but I'm on a budget. I've found some reasonably priced GeForce 7600s, but I'm not sure if I should pay the extra 30 or 40 dollars to get the GT over the GS. What's the difference, and is it worth 40 bucks?

Ryan Kok

A: The GeForce 7600 GT and GS are pretty good buys for a gamer on a budget. At the prices you mentioned, I would go with the more expensive, but faster, GT model. Specs vary a little bit from one manufacturer to the next, but generally it breaks down like this: The 7600 GS has a core clock speed of 400MHz, while the GT's is 560MHz—that's a 40 percent faster core clock speed. The 7600 GS has a 400MHz memory clock, while the GT's is 700MHz—that's 75 percent more memory bandwidth. So the GT model is going to be roughly 40 to 60 percent faster, depending on the game and the settings. That's worth the extra green.

Got questions? Send them to Tech_Medics@ziffdavis.com.

ONE OF THE TOP FIVE GAME-DEGREE PROGRAMS
– Electronic Gaming Monthly

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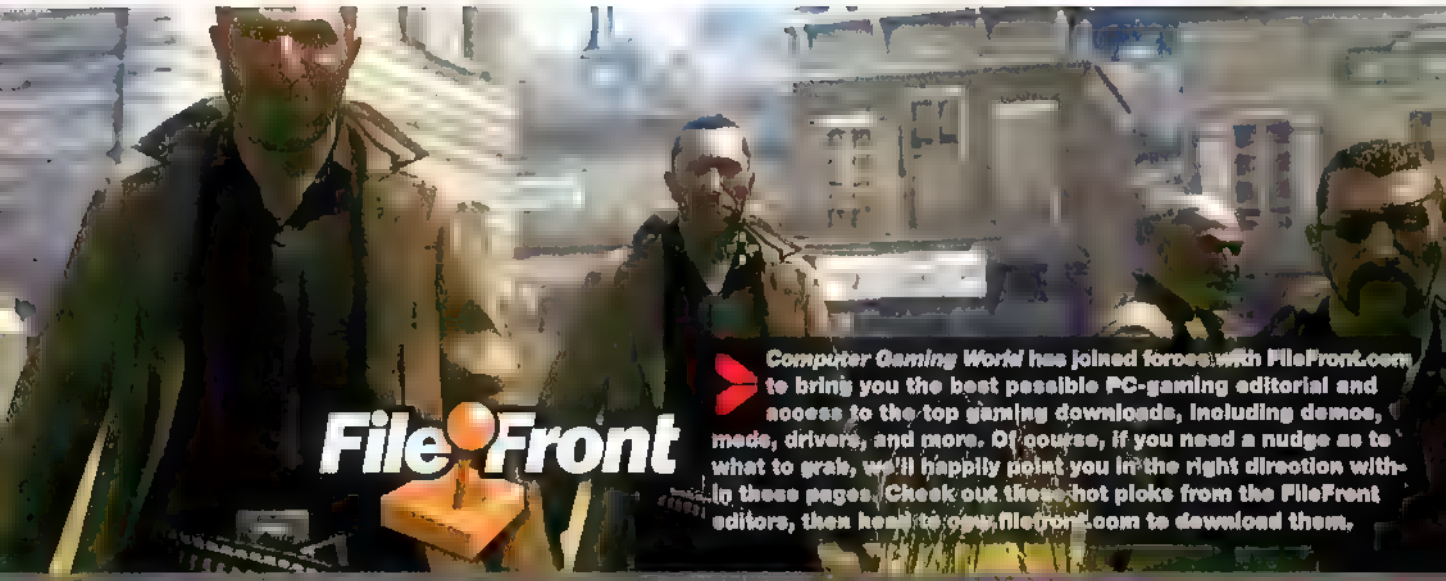
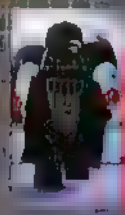
THE LATEST AND GREATEST PC DEMOS



Computer Gaming World has joined forces with FileFront.com to bring you the best possible PC-gaming editorial and access to the top gaming downloads, including demos, mods, drivers, and more. Of course, if you need a nudge as to what to grab, we'll happily point you in the right direction within these pages. Check out these hot picks from the FileFront editors, then head to www.filefront.com to download them.

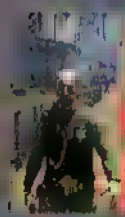


LEGO STAR WARS II: THE ORIGINAL TRILOGY

Take the classic *Star Wars* trilogy for a new spin in this blocky, tongue-in-cheek game based on the *Star Wars* movies. The good guys

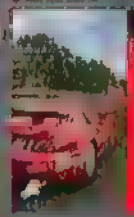
DARK MESSIAH OF MIGHT AND MAGIC

Become a warrior, mage, or assassin and sample some mighty, magical adventures in the world of Ashan in this single-player demo.



CALL OF JUAREZ

Saddle up, strap on your six-shooter, and sample missions for each of the main characters in this Wild West first-person shooter.



GTR 2

Climb behind the wheel of one of two FIA GT class cars and race against computer-controlled opponents at the Barcelona GP circuit.

FACES OF WAR

Here's your chance to command German, American, Russian, and British troops in some of World War II's most famous battles.

DAVE THE WORM (SHAREWARE)

From friendly tutorials to fiendishly difficult brainteasers, this game caters to all levels of puzzle fans.

BLISS ISLAND (SHAREWARE)

Roll your way through a circuit of challenges in *Bliss Island* as you blow through more than 90 levels of wacky, weird fun.

AGE OF EMPIRES III V1.08 (PATCH)

This update fixes a number of bugs and adds game improvements and features such as quick search and power ratings.

BLAZETRIS (SHAREWARE)

Sometimes imitation is the sincerest form of flattery. This *Tetris* clone comes complete with 3D graphics and custom music.

TITAN QUEST V1.11 (PATCH)

This patch improves inventory placement and multiplayer performance, fixes a memory leak, and addresses other bugs.

BATTLEFIELD 2: SURREAL II (MOD)

As the team behind this *Battlefield 2* mod puts it, *Surreal II* "will definitely battle your imagination."

QUAKE 4 V1.3 (PATCH)

Grab the latest update for a host of community-requested features along with a new game mode, eight new maps, and a killer new weapon.

STARCRAFT: BROOD WAR V1.14 (PATCH)

This patch for the *StarCraft* expansion *Brood War* offers an extensive list of changes to enhance your RTSing.

NEOPOINTS 1.75: REALIZATION (MOD)

This latest version fixes several bugs and greatly improves server performance. It also adds one new map and updates several others.

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GAMING FOR DUMMIES

Who says games are too easy? One moron speaks out

ILLUSTRATION BY SEAN DALIA/ASCII

AS A NOTED GAMING-INDUSTRY PUNDIT, AND ONE WHO CAN justly lay claim to the title "dean of the gaming press," it's my job to read a lot. Because when you read, you learn. And when you learn, you get smarter. And when you're smarter, you can serve your readers better by, like, knowing more stuff.

Just this morning, for example, before coming to work at *CGW*, I was reading my box of Frosted Flakes and learned that the cereal, according to noted mascot Tony the Tiger, can actually help your body grow stronger. Before I read that, I'd always believed my mom when she said it would rot my teeth out and make me get fat. Now I know she was just a big liar.

Another thing I've learned by reading is that many gamers now think games are too easy. I read this on a number of different threads on some of the online message boards I frequent such as quartertothree.com, where civil and intelligent conversations among gamers occur, with nary an insult thrown amongst the participants, except for the occasional use of words like "douchebag" and "asswipe." And those are usually only directed at morons who don't know what they're talking about, so they therefore deserve whatever name I call them.

So, yeah. I think those asswipes are wrong—games are *not* getting too easy. If they were, then I might actually beat one for a change. What I think may be going on is not that games are getting easier, but rather, *friendlier*. Case in point: *Prey* (see *CGW* #266, pg. 84). Here's a game that, unlike nearly every other shooter before it, goes out of its way to ensure that you don't have to spend half your gaming time dying and reloading to your last save point. In this game, when you lose your last health point, you go to a netherworld for a few seconds—kind of like a dunce corner—where you momentarily get to ponder your loserdom before warping back into the game right where you left off. Any monsters that had been injured before you died are still just as injured as you left them.

Here's where the controversy is: According to certain online nimrods, this is not enough of a "penalty" for having died. In their world, I sucked, so now I should suffer. Maybe the monsters should get all their health back. Maybe I should have to restart the level. Maybe I should be forced to uninstall the game, parade through town naked with a bright red "I Suck at Games" tattoo branded on my rear and then jump off the Golden Gate Bridge. Anything but continue the game without paying a price.

Yeah, well, you know what? I *did* pay a price. $49.99. And that means I'd like to play my game without anyone telling me it's not hard enough for me. The refreshing thing about *Prey* is that it lets me keep playing without artificially forcing me back to a loading screen—a gaming convention that I'd be happy to never see again.

Frankly, forcing gamers back to an earlier state is just a somewhat bogus way of inflating a game's playtime. If I have to die first and reload the game to figure out how to beat a monster or get down a corridor, then I humbly submit that it's not me who sucks as a gamer, but you who sucks as a designer. By all means, I want a challenge. I want to have to use my brains and my reflexes to propel myself forward in your game. But I should be able to do this without your ending the game on me completely. Why not just give me a small penalty, as in *Prey*, and let me continue?

***

Yes, I know, Mr. Übergamer. You're a tough guy. You think the "normal" mode on most games is for wimps and n00bs. You can beat the hardest mode in every game in 30 minutes while standing on your head, blindfolded, and with both hands tied behind your back. Great. Call the circus. Perhaps the bearded lady will find you hot.

But if you think you represent the gamer norm, I have important news for you: You're a moron. Most gamers I know play in "easy" mode most of the time. And if they get stuck? They cheat. Because most people who play games just want a little fun and diversion. They're not staking their entire claims to manhood and self-worth on whether or not they took down the giant lizard the first time around. And, hey, if you're so great, you won't be dying anyway, right? So why should you care what the death mechanism is? Death only happens to people that suck.

And those of us who do suck? We're tired of dying. We want to live. We want to play on. So, I write this on behalf of the hundreds of thousands of long-suffering, constantly dead gamers who've spent far too many hours staring at their own bloodied, lifeless bodies, and offer one humble "thank you" to the designers of *Prey* and other games who make death a relatively painless experience. Our reanimated corpses salute you.

Think Jeff is too easy? Send the nastiest e-mail you can think of to jeff_green@ziffdavis.com—and watch as he respawns instantly.

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56008	MS. NEW BODDY
56009	MY BOO
56010	OH
56011	RIDIN'
56012	SNAP YO FINGERS
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56014	TEMPERATURE
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56035	GRAND THEFT AUTUMN (WHERE IS YOUR BOY)
56036	I WRITE SINS NOT TRAGEDIES
56037	MOVE ALONG
56038	MR. BRIGHTSIDE
56039	PHOTOGRAPH
56040	SAVIN' ME
56041	SOMEBODY TOLD ME
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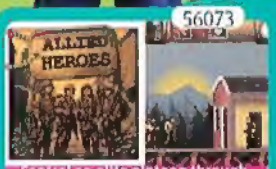

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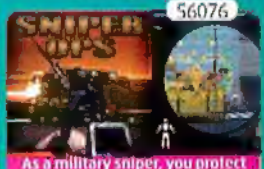

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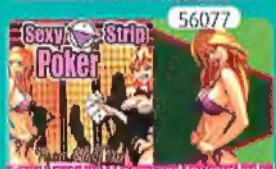

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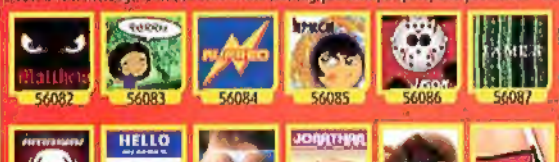

If your name is Steve and you want WallTag 56083, send a text message with 56083 STEVE to 33933. (If you have a signature tag, please remove it.)

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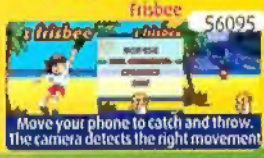

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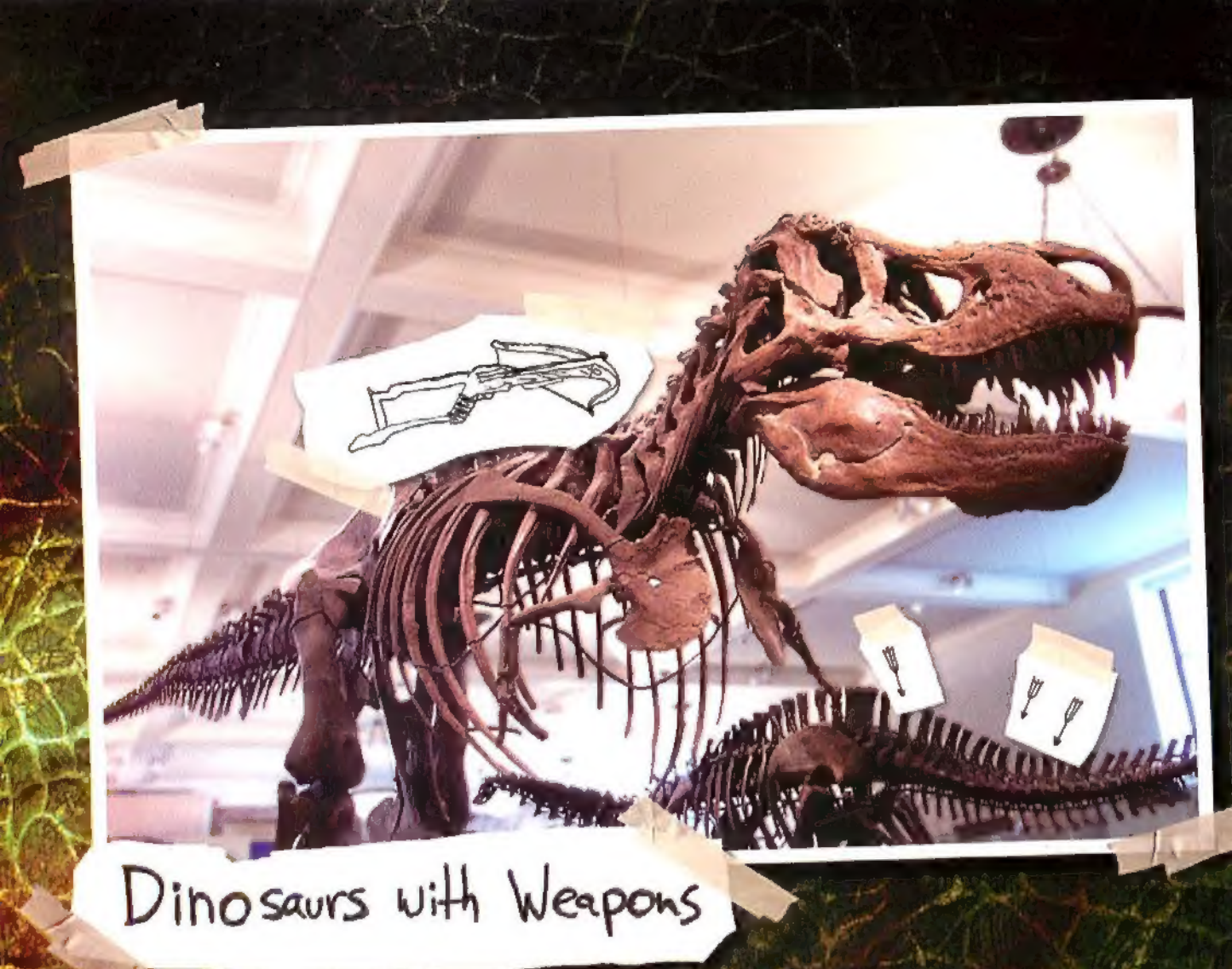

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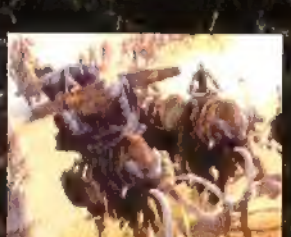

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